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Accounting Principles

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PREFACE

There has been in recent years an increasing recognition of the importance of accountancy in the conduct of business affairs. The time is not far behind us when even the best business men begrudged somewhat the time and cost of keeping the books, which they regarded as a necessary but wholly unproductive appendage to other business transactions. Today the accountant is an honored member of the business community and accountancy has definitely taken its place together with production, marketing and finance as one of the four major divisions of all business enterprise. Progressive business men find in a suitably organized system of accounts and statements the most efficient aid in guiding their business affairs and formulating business policies.

Accountancy is then an integral part of business administration, and must be mastered by those who would make themselves proficient in affairs. It is one of the four corner-stones upon which the business structure rests. This explains at once the prominence given to accounting subjects in the Modern Business Text and indicates the point of view from which their problems have been approached.

In the present Text, the first of the accounting

series, the author has tried to tell what every business executive ought to know about accounts and the story they present. Executive authority is not vested solely in the heads of concerns; it is spread thruout every business enterprise and whoever directs the activities of others is charged with executive authority. The business executive does not require a minute knowledge of accounting technic in order to make the proper use of accounting records. He must, however, have a firm grasp of the fundamentals of accounting procedure and he must know how records are made, even tho he never makes them. Consequently, the purpose here has been to emphasize the fundamental principles involved and to introduce the mechanical aspects only so far as was necessary to illustrate or re-enforce the application of these principles.

The author is deeply indebted to Mr. Frederick H. Hurdman, who has collaborated with him in the preparation of this volume. Mr. Hurdman's extensive experience and his unusual ability to dissect the fundamental principles of accounting out of the maze of detailed practice have been freely drawn upon. Furthermore, to be able to commit the manuscript to the press with the stamp of Mr. Hurdman's approval upon it is a source of great satisfaction to the author.

FREDERICK C. RUSSELL.

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CHAPTER I

EVOLUTION OF ACCOUNTING

1. *Function of accounting.*—One impressive characteristic of the modern business world is the size, the diversity of activities and the wide variety of interests found in the large business organizations of today. To most of us the problems of operating and managing such great enterprises appear exceedingly difficult, and so they would be were it not for the highly-perfected organization thru which they are controlled. An examination will show that all business enterprises, large or small, if successful, are conducted in accordance with a comparatively few fundamental principles.

It must be remembered that these large organizations are highly departmentalized. In fact, every large organization is made up of a series of related business units, each one of which has characteristics peculiar to itself. Each unit, or department, assumes to a certain degree the aspect of a separate business enterprise. Frequently numerous branches will be found, each of which is operated as if it were

independent of the others. Viewing an organization in this way greatly simplifies the understanding of its operations and records.

Manifestly, these various branches, departments or activities are not simply set in motion and then forgotten. The successful correlation of each unit with all other units, or in other words, the successful operation of the business as a whole, requires that back of all the individual units there be a supervising force directing their combined efforts and at the same time keenly interested in the progress and condition of each separate unit.

The means by which this supervision is exercised—the mirror in which the essential facts regarding the business are reflected—is the accounting system. Upon its adequacy and accuracy will depend to a large extent the success of the executive control. Rightly considered, accounting is far more than a record of transactions dead and gone; it is a necessary instrument of current management, for it keeps the executive informed at all times of the essential facts and details of his business. Without the aid of accounting, business could not have reached its present stage of development and growth.

2. *Accounting as an aid to executive control.*—We are not concerned here as to whether the advancement in accounting procedure and use has been the result of demands made upon it by business executives for more accurate and detailed information, or whether its development has been one of the contributing fac-

tors which have shaped business and contributed to the size and complexity of modern organizations. It is sufficient to say that the advancement in the science of accountancy and the changes in business practice have proceeded hand in hand.

It is furthermore certain that without accounting, as it is practised today, every large concern would be made up of a multitude of dissociated units, each one of which would be separately controlled and supervised. We could not have our great industrial and commercial combinations, governed by the ablest minds in the country, and we could not reap the benefits and economies of centralized control, unless accounting had also been properly developed to bring to the executive officers the information which they require in order to administer and control efficiently the affairs of their organizations.

3. *Origin of accountancy.*—While history is silent regarding the origin of accountancy we are, nevertheless, justified in assuming that, in its crudest form, it must have come into existence at a very early period. Whenever exchange or barter required more than the mere exchange of one article for another, e. g., when it required an adjustment of value or a deferred payment on one side of the transaction, some sort of a record was necessary.

The science of accountancy can be definitely traced back thru records of the earliest civilizations. The ruins of ancient Babylon have given up a number of tablets, many of them as old as 2500 B. C., which con-

tain complete records of commercial transactions. It has even been suggested that the Phœnicians evolved the alphabet as a phase of record-keeping, in order that they might be able to express the results of their trading transactions and so avoid being cheated.

The Athenians and the Romans had well-developed systems of accounting. Under the Roman system, moreover, accounting records, when properly prepared, were considered good evidence of commercial obligations and were admissible in their courts of law as proof of debt.

4. *Purpose of early systems.*—In operating all these primitive systems there was apparently no thought of making the records permanent or of using them for any purpose other than that of reference. All entries were of a temporary nature and, when a settlement was made and the transaction completed, the records were destroyed. Yet these crude records gave evidence of a plan for recording business transactions.

A large part of the business carried on in these early times was composed of distinct ventures or trading trips, sometimes financed by an individual and sometimes by a group of traders. The records needed at first were simple and covered only the particular undertaking and the personal relations arising out of it.

As operations were expanded, however, a second venture would frequently be undertaken before the

first had been completed, or perhaps, one individual might become interested in several different ventures, all proceeding more or less simultaneously. Consequently, the transactions of any one individual or of any one venture became merged with other contemporary transactions of the same man or group of men.

5. *An advance in accounting procedure.*—With this change in the manner of conducting business, it was no longer possible to wait for the completion of all ventures before determining the profit made or the loss incurred. These early business men were just as desirous of knowing their progress and their financial condition as are those of modern times, and they had to develop some method of measurement to apply from time to time, irrespective of whether all ventures had been completed or not. Thus, it finally became customary to check up the results on a yearly basis, or by sub-divisions of the year. This immediately disclosed the necessity of establishing values for uncompleted undertakings. In this measurement of uncompleted contracts and the periodic checking up that was involved, we find the first step in the development of accounting systems of the type prevalent today.

Accounting at that stage became a matter of continuous record, which showed not only the results of individual ventures, but also the results of classes of transactions and of the business as a whole, regardless of the number of ventures in progress.

With the increase in the size of single business enterprises, the problems of management became more and more difficult. At this stage was developed a method of weaving together the masses of complicated records into systems of accounting which could be used by executives not merely as history of past transactions, but also as an aid to current control.

6. *What the executive demands from his accounting system.*—Every business is conducted for profit. This statement may not be true of those philanthropic institutions whose sole function is the collection and disbursement of funds for charitable or educational purposes. Yet even such organizations can be operated inefficiently as well as efficiently, and some means of measuring costs and watchful care to avoid waste are essential to their economical management. Earning profits and preventing losses lie at the root of all executive action. The progressive executive makes use of as many facts as he can obtain in order that his judgment may be sound and his policies successful.

Whether the business is large or small, whether it has many departments or only one, the problems involved are basically the same, tho the difficulty of the problems increases with the development of large and complicated organizations.

Profits and progress are synonymous in the mind of the business man. Yet, to know the extent of profit or progress alone, while important, is not

enough. Successful business management implies more than the making of profits. It includes, among other things, the attempt to increase profits, the conservation of such profits after they have been made, and it involves the coordination of sales volume with productive capacity and with financial resources.

Profits can be increased not only by increasing sales, which sometimes is a difficult matter, but also by decreasing expenses when the gross income remains the same or is diminished. Since the accounts reveal the causes of expense, they afford a valuable source of plans for expense reduction. Consequently, business men who know how to study accounting records are just so much better equipped to reduce costs.

7. *Outside demands for information.*—This demand for facts does not arise solely from those entrusted with the responsibility of supervising or directing a business enterprise. Interested outsiders, such as credit men, bankers, investors, stockholders, customers and the like are frequently as anxious to know the condition of a business as are its executive officers. It is true that these outside demands are of a slightly different nature and are not concerned with minute details, but after all, they are a demand for facts, and the only way in which facts can be obtained is thru the keeping of accurate and intelligent records.

8. *Every executive an accountant.*—Every business man is, to some extent at least, an accountant.

In his work he constantly weighs facts, as they are brought to his attention. Unfortunately many executives are not well-fitted to interpret the facts which their accounts bring to light and consequently are unable to grasp the full significance of information available to them. Valuable data thus often remain unused.

Every executive, for example, knows that he should not tie up too much money in raw material. Not every one, however, knows how to test his estimate as to how much material should be purchased. He may not check back against the records of previous years, or study the trend of sales as shown by his statements. Likewise, he may not appreciate the necessity of taking into consideration the cost of interest on investment, storage cost, handling expense, etc., which would possibly more than offset any saving from buying a larger supply than usual. He may not even consider checking up to see whether or not he can finance this excessive purchase along with such other current payments as will fall due.

Again, the business man, who has but a smattering knowledge of accounting and who lacks experience in interpreting financial statements, is likely to interpret his statements too literally and accept too freely the conclusions which they seem to imply. He may not test their accuracy and, therefore, can not judge their reliability. This weakness is as dangerous as a complete lack of accounting knowledge.

9. *Accounting records, a source of facts.*—An ac-

counting system is the source of proved facts which must be used constructively if they are to be most profitable and valuable. The use made of them depends upon how thoroly they are understood and how correctly they are interpreted. If the accounting system is properly devised, every individual inside or outside the organization who has access to the summarized records will find there the necessary facts on which to form a sound opinion as to the progress and condition of the business or any part of it.

Accounting is neither mysterious nor complicated. It is simply an accepted code or a special method of abbreviation, whereby all essential facts about a business are collected in one place and, under uniform rules, classified according to their effects. These facts are then summarized in statements, which group them according to the departments or activities involved. In other words, the transactions which affect each particular phase of a business are picked out separately and regrouped so as to present in one statement and in one form the classified information contained in such a collection of facts.

10. *Standardized procedure.*—Systems of accounting are worked out in accordance with certain standard and unchanging principles and consequently, uniform methods are followed in the recording of business transactions. Standardization makes possible ready comparisons of conditions from time to time within one concern, or with other business organizations. It is clear that, if the information collected

by one accountant were to be recorded and preserved in a way different than that followed by other accountants, comparisons would be difficult. The complications would be the same as if every telegrapher should use a different code.

Since, however, accounting is uniform and since the rules are standardized thruout, the fundamental principles of interpretation are applied alike to all accounting statements.

11. *Importance of technic.*—As we have seen, the cry of every executive is for facts, and the only way it can be satisfied is thru the keeping of some kind of records whereby these facts can be obtained when needed. We might simply write down in narrative fashion the story of each transaction as it occurs. This plan no doubt would show at the end of a period just what had transpired. But imagine for a moment the difficulty of writing in detail a chronological history of a month's business of even a small concern and then of determining from this written history the effects which the recorded transactions have had upon the progress and condition of the concern. Volumes would be required for such a record, the essential facts would be lost in the multiplicity of details and an enormous amount of time would be wasted. By means of proper accounting methods the work of recording is systematized and shortened and important facts are picked out and kept always available, unmixed with unessential matters. Sys-

tem, abbreviation and routine take the place of much of the cumbersome detail involved in a written chronological description.

At first thought any intelligible summary of the mass of transactions that go to make up a day's or a month's business in the average enterprise seems rather difficult. It is true that difficulties are sometimes encountered, and that to establish the procedure necessary to record the business transactions properly is sometimes a rather complicated problem. Yet, when a business man has once satisfied himself that his accounting system is so designed as to bring out the kind of information he wants, he needs to bother himself little with this phase of accounting work. It is distinctly a problem of the operative side of accounting and as long as he understands the general principles by which facts are gathered, collected, summarized and presented to him, he need not concern himself greatly with the problems involved in actual operation.

12. *Accounting proficiency.*—There are two kinds of accounting proficiency, namely, operative proficiency and interpretive proficiency, or what might be termed proficiency in use. Operative proficiency, which is a part of the work of directing and doing the routine work of accounting, combines a knowledge of principles, together with extensive practice in actual bookkeeping work. The executive, with the exception of the controller and allied officers,

need not be proficient in this branch of accounting in order to possess the ability to interpret financial records properly.

Some executives rely upon their accountants for all interpretation of their accounting records. This plan is highly undesirable. First, because the accountant, unless he has a broad experience and a great familiarity with the history of the particular business, is not likely to consider the problems of the business from every angle and may fail to draw from the records all the information that would be useful. Second, because the interpretation of financial statements is a matter of drawing conclusions from the facts presented in the statements. The executive should be able to pick out the essential facts and form correct conclusions from them with greater success than any one else, because he is more familiar with his own plans and with the history of his past business policies.

It is said that the late E. H. Harriman, the great railroad financier, owed a great part of his success as a railroad organizer to his ability to interpret properly the statements of the organizations in which he was financially interested, or in which he proposed to make investments. In order to check up his companies from time to time, he required a set of reports to be presented to him monthly, in which there was set forth in red ink those elements of profits or loss which exceeded or which did not reach a predetermined standard. With the aid of these statements he was

able in a few minutes each month to know what was taking place in all departments of the railroad properties under his control.

13. *Accounting an interesting subject.*—To those who understand accounts, financial statements have a most absorbing interest. They furnish to the business man who understands how to use them a diversion almost as interesting as the golf course, and certainly far more remunerative. In the first volume of the Modern Business Text the author has referred to business as an absorbing game. To carry the analogy still further, we might liken the financial statements to the score card. We must then first learn how the results are obtained before we can properly read the business score card. To the man who is playing the game and enjoys it, the results are always of interest.

REVIEW

Outline the functions of accounting in present-day business conduct.

State how accounting aids executive control.

Why are routine and standardized procedure so essential in accounting work?

Would a detailed chronological history of a concern's business for a period properly serve an executive's needs?

CHAPTER II

BUSINESS TRANSACTIONS ANALYZED

1. *Every transaction an exchange of values.*—From the accounting viewpoint, business transaction are essentially series of exchanges which may be ex pressed in terms of money. These exchanges may b classified broadly as follows:

(a) An exchange of merchandise for cash
(b) An exchange of merchandise for obligation to pay in the future
(c) An exchange of services for cash
(d) An exchange of services for merchandise
(e) An exchange of services for obligations t pay in the future
(f) An exchange of cash for obligations to pa in the future.

These exchanges may also be reversed, i. e. an ex change of cash for merchandise, etc. The functio of bookkeeping is to record the effects of all such ex changes or transactions in terms of money. It wi be observed that any of these transactions may in volve the exchange of a single item for two or mor items and vice versa. Merchandise, for exampl

may be exchanged for both cash and obligations to pay in the future, etc.

Every business transaction is an exchange of values between a giver and a receiver. Outside of possible exchanges between coin collectors and foreign currency brokers there would be no advantage in an exchange of cash for cash. Consequently, the first requisite of an exchange is that two or more different elements shall be involved and that the exchange shall be equal or shall be made equal in the eyes of each participant by the introduction of a sufficient cash consideration or its equivalent. The fact that the cash payment may be deferred until a later date and temporarily represented by an obligation to pay does not disturb in any way the equality of the exchange, provided the one recipient is satisfied to accept the other's promise to pay in the future.

Accounting takes cognizance of all such exchanges and, as will be seen, provides a systematic record of them, whereby the status of any individual exchange, as well as the combined effects of all exchanges, may be determined.

2. *Monetary effects of transactions.*—From the standpoint of the business man, there are two phases to every transaction; first, there is the fixing of the value which he or his business gives up and, secondly, there is the value which is placed upon the things received. The merchant selling merchandise establishes a price at which he expects to sell his goods. This figure is seldom, if ever, the cost of the goods to him,

but rather one which will reimburse him for their cost and leave him something over as profit.

Of course, there are also simple exchanges by barter where each of two individuals has something that the other desires. A simple exchange may be made, and both parties get their return in increased satisfaction, but enjoy no financial profit, since the monetary sale value of each article is the same. Such transactions, however, are usually of a personal nature and rarely occur in business conducted for profit.

3. *Values are the basis of records.*—As we have seen, the transactions with which accounting is concerned are those capable of being reduced to or expressed in terms of money. The fact that one side of a transaction is represented by a promise to pay rather than by cash or merchandise makes no difference in the propriety of recording it.

The exchange of values, referred to in Section 1 of this chapter, consists of exchanges of property, or of property rights, since property is the right to use and enjoy the particular kind of goods or services in question. Most of us are accustomed to think of property as being something tangible in itself. Thus a chair, or a table, or a stock of goods are known as property and being tangible things are looked upon as the actual things that we own. If we did not make use of these tangible things, or exchange them for something else, they would have no value at all to us. Consequently, our ownership rests upon our right

to use, enjoy or dispose of a particular thing in any way that we see fit.

It is in reality these rights that the accounting records express. As a matter of fact, the rights which are the subject matter of accounting records do not have to be based upon tangible, physical things. The right to collect money from other concerns, the right to employ patents, to receive the profits and monopolies granted by trade-marks, etc., are just as much property rights as is the possession of cash, machinery, desks, goods, etc.

4. *Property rights.*—Thus it will be evident that all property can be reduced to certain rights, namely, the right to use, enjoy or dispose of goods or services. A bank account is not cash, but rather the right to demand payment of the sum on deposit. Furthermore, money in itself has value to the possessor primarily because it gives him command over other goods and services, and finally the control which we exercise over goods is not valued by the goods themselves but in accordance with the uses which can be made of them or the basis upon which they can be exchanged for other values.

Since all ownerships, therefore, can be expressed in terms of property rights, it follows that when a transaction involves deferred payment by one of the parties, there is still an exchange of rights. If merchandise is sold on credit, whereby payment is to be made at the end of thirty days, the vendor gives up

the right to use, enjoy or otherwise dispose of the merchandise sold in exchange for the right to call upon the purchaser for a fixed sum of money at the end of thirty days. Consequently, in order to express this transaction in the accounting records, it is necessary to put a selling value upon the merchandise sold and to set the same value upon the promise to pay.

5. *Assets are property rights owned.*—Property rights, which are the subject-matter of business exchanges and which can be disposed of for value, are called in accounting terminology "assets." We may have property rights which are valueless as the subject-matter of business transactions. Heirlooms, for example, may have a sentimental value to their owner, but may be of no value to another and consequently not marketable. Property which can not be disposed of in exchange for values is not properly a part of the assets of a business concern.

It should be clearly understood that assets include not only rights to the immediate use or disposal of property but also rights to receive property in the future under a promise to pay. The possession of a promise to pay is a right which can be enforced in a court of law. An additional transaction takes place and must be recorded when the holder of the promise surrenders it at maturity in exchange for the specific sum of money mentioned.

6. *Classification of assets.*—It would be possible to record all assets possessed by the business under one

single heading, which would cover all the assets owned. In actual practice this is never done for reasons that are obvious. The executive should know how much in total his business possesses, but it is not this total value that determines his financial policy. He wants to know specifically the things that his business possesses, how much merchandise is being held for resale, what is the value of furniture and fixtures, etc. He wants to know, furthermore, how much cash he has on hand and how much he has outstanding in deferred payments, which will be realized upon in the future.

To provide this information the accounting system keeps a separate record of each class of assets. The importance of such classification is apparent if we consider the situation of the business which, because it does not know how much of any particular class of assets it has, converts all its assets into the construction of a building. It has left no money with which to buy merchandise and as a consequence can not start business. Again, take the case of the concern which ties up so much money in building, equipment and merchandise that it is unable to pay its debts and consequently, having on hand no cash or an insufficient amount of cash becomes bankrupt even tho the sum total of its assets may be far in excess of the debts which have matured for immediate payment or even in excess of its total debts.

7. *Liabilities are obligations to pay.*—As far as bookkeeping records are concerned, obligations to pay arise thru the receipt of assets of one form or

another and the transfer in exchange for them of promises to pay at some future date the values established. The right to property acquired in this exchange becomes the asset of the purchaser and may be disposed of by him as he sees fit. He must, however, voluntarily comply with his agreement to pay, or he will be compelled to do so by action in a court of law. This right or claim of another against a business is known as a liability of the business. A liability is, therefore, a right of action by law by another against the property of the one who assumes the obligation or who becomes liable under an oral or written promise to pay. It is in other words a negative value—an offset to or deduction from the positive values or property rights possessed.

From the above it logically follows that personal services rendered may become an asset to the recipient, for which he may give a promise to pay and that this promise to pay becomes in turn an asset of the one rendering the service. If A performs services for B under B's agreement to pay for the same, A has an asset which consists of his right to compel B to pay him for those services. This B will do by parting with some asset which he possesses, such as cash or goods. On the other hand, from the standpoint of B, the service which A rendered is value received, which B will pay for by parting with some of his assets, and, until paid for, the service results in a liability of B to A. The value received by B may not be in the form of additional separate proper-

ties, but rather an increase in the value of some property which he already possesses. Thus, if A is a mechanic and performs work on raw material in the hands of B, a manufacturer, and converts this raw material into a form which gives it greater value, then the property right which B receives from A is the increased valuation of the product so manufactured.

Whether or not the services performed are of this nature, they always represent a value which has been agreed upon between the two parties and for which B must pay when A has performed the work promised.

8. *Security for liabilities.*—At first thought, it might appear that the title to the property received in exchange for a promise to pay in the future is not vested in the purchaser, until the time when actual payment is made. This is not the case, however, unless the purchase agreement specifically states that the asset acquired is security for the debt, or unless the parties have agreed that title to the property is not to pass until payment is made. A promise to pay even tho unsecured by specific property of the debtor is an enforceable right belonging to the holder thereof and his interest is no longer in the specific property given up by him in exchange for the promise to pay, but rather in the purchaser's ability to redeem his promise at maturity. When the payment is being made the thing purchased may not have entered at all into the transaction.

For example, a merchant purchases $5,000 worth

of merchandise upon his promise to pay thirty days from date. At the expiration of thirty days he may not have sold any of the merchandise acquired in this particular exchange, but may have sold a sufficient quantity of other merchandise which he already had on hand to raise the $5,000 that he must pay. Also, it must be realized that the vendor is always interested in receiving the value set upon his goods and not in receiving back the particular goods themselves. The value he sets upon them presumably contains a margin of profit for him and it is only by completing the exchange and realizing the value set that he is able to make a profit.

9. *Net worth.*—If an individual, owning a business, has no liabilities of any form, then the sum total of the assets, or property rights of his business, constitutes his net worth. This statement, of course, assumes that he is interested only in the one business and has all of his possessions invested in it. The value of his investment is equivalent to the money value of the property rights possessed.

It seldom happens, however, that an individual has no debts. Consequently, before stating his actual financial condition, the liabilities owed must be deducted from the money value of his assets, out of which they must ultimately be paid. This may be expressed in the simple formula:

Assets — Liabilities = Net Worth.

The business man's object in engaging in trade, manufacturing or the rendering of service is that of increasing his net worth. The primary purpose of bookkeeping then, in so far as the proprietor is concerned, is to record the changes in net worth and show how these were brought about. The fluctuations in net worth are reflected thru the net increases and decreases in assets and liabilities that have taken place during any given period of time.

10. *The relation of assets and liabilities is constantly changing.*—The foregoing conclusion will be evident if we analyze the changes that take place in the conduct of business. When there are no liabilities, the individual has an undivided right, title and interest in all the assets. He may do with his assets as he sees fit, even to the extent of wasting them entirely. On the other hand, when there are liabilities, which must be met out of his property rights, he does not possess an undivided right to the assets. His equity in the assets is that which remains after the claims of others against them are paid off or satisfied, and the only way by which they can be paid off or satisfied is thru the conversion of some of his property rights into a form which will be acceptable to his creditors.

Cash, naturally, is the most acceptable medium since it is an object of general demand and has a universal command over other property rights. Variations in the character of his assets, therefore, are

constantly tending toward a conversion into cash which, in turn, is to be used in liquidating the liabilities that exist.

The sum total of the liabilities constitutes the equity of outsiders in the assets. The net worth represents the proprietor's equity in the assets. Together, then, the liabilities and net worth are equivalent to the total assets.

11. *The changes that take place.*—The various business transactions, or exchanges of an ordinary undertaking, result in changes in the character and quantity of the assets and liabilities. These assets and liabilities may be separately or collectively increased or decreased. This happens when we exchange cash for office equipment or a promissory note for cash, etc. Some transactions, tho perhaps not all of them, also reflect changes in the net worth. In other words, an exchange may be profitable, in which case the net worth is increased, or it may be unprofitable, in which case the net worth is decreased.

Take the case of the merchant, who has on hand a stock of goods which cost $5,000 and on which he still owes, we will assume, $3,000. His net worth is $2,000, assuming that there are no other assets or liabilities involved. He disposes of an amount of merchandise which costs him $2,000 at a sales price of $3,000 receiving cash in exchange. Here is an exchange which constitutes the giving up of merchandise which cost $2,000 and the receipt in exchange of a property right valued at $3,000. The assets now

total $6,000, namely, the $3,000 cost value of merchandise left on hand, plus the $3,000 cash received for the merchandise sold. His liabilities still remain $3,000 but his net worth has been increased $1,000 by the profit he made on the transaction giving him now a total net worth of $3,000.

If, however, this same merchant had sold for $1,000 merchandise costing $2,000 because the market price for such goods had fallen, then he would have as a statement of assets the $3,000 worth of merchandise at cost value remaining on hand, plus $1,000 cash received. Deducting the $3,000 of liabilities aforementioned his net worth would be only $1,000, since he had lost $1,000 of his net worth in the sale of goods below cost. If unprofitable sales of this nature continued, the total of his assets would become no more than equal to or even less than his liabilities and he would naturally be forced out of business unless financial assistance were obtained.

12. *Identifying changes in financial condition.*—When reduced to its elements, every undertaking may be resolved into the following simple propositions:

(a) When a business is started the proprietor owns all its assets, unless he is obligated in part for them; in any event, the excess of assets over liabilities constitutes the net worth of the business or, in other words, his equity in it.

(b) All subsequent business transactions, no matter how complicated, whether they involve deferred

payments along with current payments, or whether they are expenditures that do not immediately take the form of an increased or added property right, result in two or more of the six changes listed below:

(1) Increase in some asset
(2) Decrease in some asset
(3) Increase in some liability
(4) Decrease in some liability
(5) Increase in net worth
(6) Decrease in net worth

Upon these simple fundamentals is built up the modern system of record-keeping known as a double-entry bookkeeping. The processes for recording transactions may often be complicated, particularly in large organizations, and those unacquainted with the subject are likely to become confused and to lose sight of the simple governing principles in the mass of detail that is necessary to carry them out.

13. *An illustrative case.*—Let us assume that Richard Brown engaged in business on May 1, with a cash capital of $15,000. The fundamental principle established above was that the net property rights of the business constituted the proprietor's net worth. Expressed in another form, this transaction is as follows:

Assets (cash $15,000) equals net worth—Richard Brown's capital investment ($15,000).

On May 2, he purchased merchandise at a cost of $7,000 in payment for which he gave up an equivalent

amount of cash. It will be recalled that the second proposition stated above was that all subsequent business transactions were reflected by changes shown by two or more of the six phases listed above. In this case there was an increase in one asset (merchandise) and a decrease in another asset (cash).

On the same day the proprietor purchased an additional stock of merchandise from J. Smith amounting to $4,000, under an oral agreement to pay within ten days. If payment is made within the specified time, Smith agrees to allow 2 per cent cash discount. It may be noted parenthetically that the monetary effects of cash discounts on purchases or sales are not recorded until payment is made. By this exchange Mr. Brown increased his asset merchandise but, at the same time, he created a liability because of his promise to pay which was given in exchange.

14. *Other transactions.*—On May 4, the proprietor received office furniture and store equipment valued at $600 from the Model Equipment Company, for which he paid $400 in cash and agreed to pay the balance of $200 in thirty days. An analysis of this transaction discloses an increase in assets to the amount of $600. In exchange, there was both a decrease of $400 in the asset, cash, and an increase in liabilities of $200.

On the same date, Mr. Brown invested $2,000 additional cash in the business. This transaction manifestly results in an increase in the asset, cash, and

at the same time an increase in net worth, because it represents a direct increase in the proprietor's equity in the business.

In each of these five transactions there is an increase in some asset and at the same time there occurs a decrease in another asset or an increase in some liability or an increase in net worth. Brown's two investments on May 2 and 4, each resulted in an increase in net worth. The purchase of goods for cash brought about both an increase and a decrease of assets while the purchase of merchandise on credit resulted in an increase in both liabilities and assets. The acquisition of furniture and fixtures resulted in both a decrease in assets and an increase in liabilities to offset the increase in the asset, equipment. Thus it is observed that every exchange or transaction must bring about at least two of the six possible changes while it may involve more.

15. *Effect of sales.*—Next, assume that the business made sales of goods to others and received in exchange other tangible assets or promises to pay money in the future. On May 5, Mr. Brown sold to J. Jones merchandise which cost $2,800 for the sale price of $3,500, in exchange for the latter's oral promise to pay him on the usual trade terms, or a 2 per cent discount for payment within ten days. When this transaction is analyzed it will be noted that Mr. Brown decreased his asset merchandise to the amount of $2,800 of recorded value, but at the same time he increased another asset by $3,500 in the form

of the demand he was entitled to make upon J. Jones to pay this sum. Obviously, the difference between these amounts is the profit that he made on the sale. This profit, in so far as this transaction is concerned, constituted an increase in his net worth. The result of the decrease in one asset was therefore both an increase in another asset and an increase in net worth.

This follows from the positive rule that the net worth is always the difference between the total assets owned and the liabilities owed. This transaction did not increase liabilities in any respect, but rather replaced an asset which cost $2,800 with an asset which was worth $3,500. The assets in total having been increased and the liabilities remaining unchanged, the increase naturally and logically was an increase in the net worth.

16. *Payments on account.*—On May 12, Mr. Brown settled the $4,000 obligation owing to J. Smith, by deducting 2 per cent cash discount, or $80, and paying Smith the balance of $3,920 in cash. In this transaction, Mr. Brown decreased his liabilities by the amount owed to J. Smith or $4,000 and decreased his assets by $3,920. The difference, the discount of $80, constituted a saving which he was able to realize because he had the necessary free funds with which to make the payment within the discount period.

If he had not paid within ten days Smith would have insisted upon payment of the full amount of

$4,000. It is clear, then, that Mr. Brown made a saving, in reality a profit. This profit is a financial profit, due to the proprietor's having sufficient funds in the business to take advantage of the discount offered; it should not be confused with trading profit, which represents the profit on goods sold. Moreover, following out the line of reasoning already laid down, he decreased his assets by $3,920 while his liabilities decreased by $4,000. Consequently, the excess of his assets over his liabilities, his net worth, was greater by $80 than it was before this transaction was carried thru.

17. *Payment for services.*—On the same date Mr. Brown paid his salesmen $80 on account of salary. This transaction resulted in a decrease of his assets (cash). In exchange for this amount, Mr. Brown received services useful to the business. These services are peculiar in that nothing tangible remains of them. They were services expended in helping to secure the profits which were realized from the business transactions of the proprietor.

When an assistant is employed the cost of his services is just as much a part of the cost of doing business as is the cost of the goods sold. If the profits which result from these sales increase the proprietor's net worth, the cost of services, whether of his own time or that of his assistants or clerks, are offsets thereto and to that extent reduce the profits. Hence, the amount paid for salary neither increases an asset nor decreases a liability, but is a direct decrease for the

time being in the proprietor's net worth. This decrease is only temporary because the profit on the goods sold thru the use of the above services will ordinarily wipe out this decrease in net worth and leave an amount by which net worth will be permanently increased.

It will be noted in respect to these later transactions that the sale of goods to J. Jones resulted in a decrease of one asset accompanied by an increase in another asset, and also by an increase in net worth. Payment of the bill of J. Smith resulted in a decrease in liabilities which was offset by a decrease in assets and an increase in net worth while the payment of salesmen's salary resulted in a decrease in assets which was offset by a decrease in net worth.

18. *Receipts on account.*—Assume furthermore that on May 15, Mr. Brown received from J. Jones cash to the amount of $3,430 in settlement for the merchandise sold to him on May 5, at a sales price of $3,500. Mr. Jones remitted within the ten day period and was entitled to deduct, according to the terms of the sale, the customary 2 per cent cash discount. In this exchange, Mr. Brown exchanged one asset (the right to receive payment from Jones) for another asset, namely, cash. In the exchange, however, he suffered a loss of $70 in that he did not realize in the form of tangible property rights the full amount which he had entered in his records as a right to future payment. The $70 discount lost repre-

sented a decrease in net worth. Stated in another way, when the sale was originally made, goods valued at a cost of $2,800 were sold for $3,500 which brought about an increase of $700 in net worth. In converting the intangible property right of $3,500 into cash, a tangible property right, there was a loss of $70. In other words, this $70 decreased the amount of profit which was originally recorded as an increase in net worth. Correcting the original amount of profit, the net worth of the proprietor was reduced by $70 thru this transaction.

19. *Simple illustrations sufficient.*—The reader will note that the foregoing transactions or business exchanges illustrate the more simplified business relations. It will be seen that all of them are concerned with two or more of the six phases mentioned on page 26. Our purpose, up to this point, has been to explain the method to be pursued in analyzing a business exchange or transaction, to illustrate the fact that each transaction has the two-fold effect of increase or decrease and to make it clear that certain exchanges affect assets and liabilities only, having no effect upon net worth, while others affect net worth as well.

In actual practice the number of transactions would be far greater and their nature more intricate but, nevertheless, any plan of analyzing and recording them would be based upon the same principles as are brought out above. Consequently, it is possible to found a treatment of all phases of accounting upon

the simple hypothetical business transactions illustrated here.

REVIEW

Define business from an accounting viewpoint.

Explain how values are the basis of accounting records.

What are property rights? What forms do they take?

What are assets and liabilities?

Define the relation of net worth to assets and liabilities.

Give the six classes into which the effects of all business transactions fall.

CHAPTER III

DEVELOPMENT OF THE ACCOUNT

1. *Knowledge of system essential.*—The recording and classifying of the various increases and decreases in assets, liabilities and net worth according to a definite arrangement and the summarizing of the results in statement form constitute the work of an accounting system. Every man knows that some system is operating in his business; he should also understand how it functions.

If this need on the part of the business man is kept in mind, any discussion of accounting involving detail, as part of it must, will lose to a great extent the dullness popularly attributed to a study of this subject.

2. *The account.*—It is clear that to be able to perceive the effect of the particular increases and decreases that occur, we must keep those pertaining to each separate element of the business apart from all others. In order to do this we must identify the assets and liabilities, the positive and negative values that exist at the start, with adequate descriptive captions or titles. All increases and decreases in the respective values may then be shown under the proper heading. The heading cash, for example, would

cover the amount of the asset cash on hand at the beginning together with all the subsequent increases and decreases. The same is true of the other items comprising the assets, liabilities and net worth.

Now these titles or headings, under which transactions are classified, are technically known as accounts. Each title or account may be regarded as a separate peg upon which is hung the monetary effects of transactions that tend to increase or decrease the value of the element represented by the account. There should be a sufficient number of accounts in every system to provide a separate one for each element of the business affected by the various transactions the results of which are measurable in terms of money.

An account, therefore, is an identifying caption under which is recorded in a systematic manner the monetary increases and decreases pertaining to any one thing or class of things. We have already said that a fundamental of accounting is the process of abbreviation which is employed to eliminate a great mass of otherwise necessary detail. The grouping of items within accounts, the method in which these items are entered, etc., are substituted for a lengthy written narrative. The account is the medium thru which all accounting information is expressed, and it is the one element which gives meaning and purpose to all other accounting records. It is so fundamental to bookkeeping work that it may be called the very back-bone of bookkeeping. Hence a knowledge of

account construction and classification is essential to an understanding of an accounting statement.

3. *Construction of the account.*—When a transaction occurs the first thing to do is to see what accounts the exchange affects and to ascertain the monetary values of each. The next step is to decide how to express the results. If, for example, a business received $5,000 cash in exchange for merchandise sold, the two accounts affected are cash and merchandise. In order that the result may be properly expressed, a record should be made showing the increase in cash and the decrease in merchandise. Many of the transactions assumed to have been undertaken by Richard Brown affected his cash balance. Suppose that we attempt to construct a cash account for Richard Brown, which would give him under one heading and in one place the complete history of his cash transactions from the time he started business. Upon examination it is found that the following transactions in cash took place:

May 1, Brown put in $15,000 cash as capital.
May 2, he paid out $7,000 for merchandise.
May 4, he paid out $400 for furniture and equipment.
May 4, he put in $2,000 additional investment.
May 12, he paid J. Smith $3,920.
May 12, he paid salesmen's salaries of $80.
May 15, he received $3,430 from J. Jones.

This is a chronological, detailed record of all the information about the cash transactions, but it is not arranged in the best form and requires further mathe-

matical calculations in order to determine, at any particular time, either the total amounts received or paid, or the cash balance on hand.

No great amount of ingenuity is required to see that the above defects can be remedied by a slight rearrangement of the facts. By simply grouping the receipts or increases of cash in one place and the payments or decreases of cash in another, information, previously obscured, is at once made available. This systematic arrangement of the increases and decreases of cash as illustrated below is basically the one used in accounting work.

Cash Account

Receipts			Payments		
May 1	Brown's investment	$15,000.00	May 2	Paid for mdse.	$7,000.00
May 4	Additional investment	2,000.00	May 4	Paid for furniture	400.00
May 15	Received from J. Jones	3,430.00	May 12	Paid to J. Smith	3,920.00
			May 12	Paid to salesmen	80.00
	Total	$20,430.00		Total	$11,400.00

In this arrangement the items in each group are arranged chronologically and, if sub-totals are entered each day in each money column, the balance at the end of any day can be obtained. The total receipts amount to $20,430, while the total payments are $11,400, leaving $9,030 on hand at the end of May 15.

4. *Preparing the account.*—This form, with the addition of certain other data which will be explained

later, is the counterpart of the form given to each account in the accounting records. Placing receipts on the left and payments on the right illustrates how position takes the place of written description. Manifestly, the collection of such data for every account employed in even the average organization is a task of some magnitude. It can not be done by separately picking out from a purely narrative record the items affecting each account and grouping them accordingly. Consequently, to maintain accuracy and permit continuous record, unchanging rules must be followed in the compilation of the account. Before taking up the study of selection of accounts, it is necessary to proceed with the development of the account itself, since the rules which govern the construction of an account are also the rules upon which every phase of accounting procedure rests.

5. *The point of view.*—In approaching any subject for the purpose of studying or practising it, it is necessary to have a point of departure or a viewpoint upon which to base an examination. To obtain a proper perspective of accounting processes, it is necessary to adopt a uniform viewpoint and a uniform base to which all transactions are related and from which every step has its beginning and with which all procedure is coordinated.

An accounting system is designed primarily to express the actual condition of and changes in the proprietor's interest in that particular business. It has been seen that business transactions result in increases

or decreases in assets, liabilities or net worth. The increase or decrease of net worth is the most important factor and one which is closely watched, since profits increase the net worth and profits are the aim of every business organization.

Moreover, since a proper relationship between debts owed and the assets out of which they can be paid is important, this also must be watched. For example, if the current debts owed are in excess of all assets other than that tangible property which represents the proprietor's right to use equipment, buildings and machinery in manufacturing or other processes, then the proprietor has too large a proportion of his assets in that form of property rights. He can not pay his liabilities as they become due unless he either puts in additional cash or disposes of some of this essential equipment. Along these lines, then, the proprietor is interested in the relationship of assets and liabilities and the form which the property rights of the business take.

6. *Every account based upon the proprietor's interest.*—The significance of this is that the records express every relation, every transaction and every account in accordance with its relation to the proprietor or the effect it will have on the proprietor's interest. Every account is looked upon as a subdivision of the proprietor's interest in one form or another. Since the business is considered an entity separate from the proprietor, from the accounting standpoint the business is the personification of the

proprietor and can have accounts with him as well as with outsiders or with tangible or inanimate things, such as cash, furniture, merchandise, etc.

The original theory underlying the development of accounting treated all accounts as personal accounts and represented the relationship which each individual had with the proprietor. For example, in the early accounting systems, there were no accounts with inanimate things, such as cash. In fact, the first accounts were simply accounts with individuals, representing how much the proprietor owed to the individual or how much the individual owed to the proprietor. This theory is mentioned here because it serves to explain the origin of certain accounting terms and practices rather than because it furnishes an adequate explanation of the theory upon which modern accounting rests.

7. *Functions of the account.*—In ordinary language, the word "account" designates a narrative of what has transpired with respect to some certain things; thus we say, "he gave an account of what happened." In accounting parlance also, an account is a complete description of something that has transpired. For example, the cash account shows the complete history of cash receipts and cash payments for the time covered. The record will show the date of the payment, the individuals to whom cash was paid or from whom it was received and the amounts in each case. Putting all the transactions together

under one heading enables one to ascertain the balance remaining in the cash account at any time.

8. *Form of the account.*—The form of a record and the position which is given to an entry both have a meaning in accounting procedure. They are parts of the plan of abbreviation. Thus, if we were to rearrange the cash transactions listed above in the form of a standard account, they would appear in the following form:

CASH

RECEIPTS						PAYMENTS					
19—						19—					
May	1	Investment	J1	$15,000	00	May	2	Merchandise	J1	$7,000	00
	4	"	J1	2,000	00		4	Furniture	J1	400	00
	15	J. Jones on acct.	J2	3,430	00		12	J. Smith on acct.	J1	3,920	00
							12	Salesmen	J2	80	00

This form contains all the information about cash that is ordinarily needed. It records factors of opposing nature, namely, increases and decreases in the element represented by that account. In this case the left-hand side represents increases and the right-hand side decreases in cash on hand. Each column has a meaning and a purpose. Columns one and two show the dates of transactions causing increases while columns six and seven contain the dates of decreases. Columns three and eight provide for explanations of

transactions. Columns five and ten contain the amounts of the transactions. Columns four and nine will be explained in chapter IV.

The same form applies to every other account found in the books. In each case the transactions affecting the account are analyzed, those of one tendency being grouped on one side of the account, those of the opposing tendency on the other.

9. *Application of the terms debit and credit.*—For convenience in expressing business transactions in account form and to distinguish the two sides of an account, as well as to indicate the effect which any transaction has on a particular account, one of the terms "debit" or "credit" is applied to every monetary amount going into these records. These terms have a specific meaning with respect to the nature of the balance in an account or the nature of an addition to or deduction from that balance. They are derived from two Latin words which originally expressed the relation of other persons to the proprietor and were later given a more extended meaning in the working out of the original personalistic theory of accounts.

The word "debit" is derived from the Latin meaning "he owes." When the proprietor first began to keep a record of his property by carrying accounts with his employes for the property and other valuables entrusted to them, he entered on the left-hand side of the account whatever property for which they had to account to him. The explanation indicated that

the individual owed him the amount of the particular asset represented by that account. The arbitrary assignment of the left-hand side of the record to the items owed to the proprietor or to the business had no more logic than many other arbitrary rules by which our daily life is governed. However, it has become a matter of custom and is so standardized today that it is now a principle of accounting to place all debits on the left. Very often instead of the word, "debit" the word "charge" is used and its use has become so customary as to make the two words interchangeable. Thus, when we speak of a charge we mean a debit or an entry placed on the left-hand side of the account.

10. *Credit.*—The word "credit" is derived from the Latin meaning "he yields." This is a further outgrowth of the personalistic theory of accounts. Thus having previously indicated the amounts with which an individual was entrusted by placing them on the left-hand side of the record, it was necessary also to make some record when the individual returned a part of the property or otherwise accounted for it. Since it was inadvisable to mix transactions of opposite nature (increases and decreases) in the same column, it became customary to indicate on the right-hand side the credits, which meant the yielding up or reducing of what had been previously debited.

The reader must get clearly in mind the principle that debits are always entered on the left-hand side

of the account and that all credits go on the right-hand side. Furthermore, by debits and credits is meant always the values or amounts debited or credited, the money columns being the most important features of an account.

11. *Other phases of the account.*—The understanding of account construction and of the rules of debiting and crediting, as well as the meaning of the words debit or charge and credit, is absolutely fundamental to any understanding of accounting procedure and statements and it will be well to study them carefully. Since the account is primarily designed to show the financial results of transactions which can be classified under the heading indicated by its title, all other data appearing in the account are subordinate in importance to the title of the account and the two monetary columns. When we speak of charging, say, $15,000 to cash, we mean the recording of that amount in the money column on the left side of the account together with such explanatory data as are called for by the other columns on the left side. The same general rule applies to any credit entries made in the right-hand columns.

12. *Debits and credits as applied to accounts.*—If we recall that the meaning of the Latin from which debit is derived is "he owes" and apply this meaning not only to accounts with persons but to all accounts representing a value to the business, all assets will be debits. Anything another owes to the business, as previously explained, is an asset and is entered on the

debit side of an account. Any other asset account can be looked upon as being accountable for or "owing" something to the business and hence a debit.

Liabilities, however, are of an entirely different nature. If we proceed on the theory previously outlined that, as accounting methods were being developed, the first records kept were the records of the property of the business which had been entrusted to others and that there grew up the habit of making all such entries on the left-hand side of the accounts, we find a good reason for showing amounts for which we are indebted to others as credits on the right-hand side. All left-hand entries as affecting individuals represented what these individuals owed to the business. In order that there might be no confusion, and that a record of amounts owed to others might indicate clearly their opposite nature in relation to amounts due the business, it was logical to place such amounts on the right-hand side of the ledger and thus to treat all debts payable, or liabilities, as credits. This arrangement has become an inflexible rule of accounting.

Now, if we understand that all assets are debits and all liabilities are credits, it is easy to understand that an increase in an asset is a debit entry and an increase in a liability is a credit entry.

Since all assets are debits and all liabilities are credits, the net worth, which is the difference between assets and liabilities, must logically be also a credit. Perhaps this statement will be clearer if the formula

already developed is repeated, namely, assets (debits) equals liabilities (credits) plus net worth.

13. *The doctrine of equality.*—The reader may at this point be reminded that every business transaction has two phases, values received and values given. If these values are properly recorded, it is evident that the total of these changes in value for each transaction must be the same. For instance, in the case of a transaction representing the acquisition of $500 worth of furniture and the paying out of $500 in cash, there is an increase of one asset and a decrease of another, and the increase and decrease are equal. This equality in debit and credit is maintained thru all transactions. No transaction is fully analyzed until it is shown that the total of the debit side equals the total of the credit side even tho there may be more than one debit or more than one credit. This equality of debits and credits thus refers to the values or amounts concerned and not to the number of items involved.

The fundamental equation, assets equal liabilities plus net worth has been used in the preceding section to show that net worth is a credit. This equation is equally useful in demonstrating why the debits and credits of each transaction must be equal in amount. As we have seen, entries of business transactions produce changes in assets, liabilities or net worth. Now if the previous condition of equality that exists before an entry is made is to be maintained, the debits and credits of the entry must be equal. In other words, we can not violate the mathematical rule that equals

must be added to equals if equals are to be maintained. This fundamental principle of the equality of debits and credits runs thruout all accounting work and accounting records. It will be referred to again from time to time as other phases of accounting work or accounting records are taken up.

14. *Debiting and crediting.*—Various rules have been developed for determining the particular debits and credits resulting from any transaction. The most consistent rule, however, is the one which is founded upon the nature of the increases or decreases in accounts. In other words, it is necessary to determine the accounts that are affected, their nature, that is, whether assets, liabilities or net worth, and then whether they have been increased or decreased. Other methods have been developed for pedagogical reasons with the idea of short-cutting the mental processes which a student must go thru in order to pick out the debits or credits of simple transactions but all are based upon this fundamental rule. As a matter of fact, these modified methods are seldom consistent and are not uniformly applicable to all business transactions.

On the other hand, determination of debits and credits by an analysis of increases and decreases in accounts is the most logical rule to follow and the only one to be discussed here. Every transaction must affect assets, liabilities or net worth and conceivably could affect all three classes of accounts. Since assets by nature are debits, then every increase in an

asset, which naturally adds to the original amount in that account, must also be a debit to that particular asset account. Similarly, liabilities and net worth are credits by nature and any increase in a liability or in net worth, in order to add to the original credit amount, must be a credit to the particular account involved. Decreases in any of the three classes are recorded exactly opposite to increases, because they are subtractions from the amounts already debited or credited; that is, a decrease in an asset would be a credit to the particular asset account and a decrease in a liability or in net worth would be a debit to the particular account involved.

15. *Effect of increases and decreases.*—In chapter II certain transactions were analyzed and six phases of their effects noted. These effects can be classified into two tables, as follows:

Table I (Debits)	Table II (Credits)
Increase in some asset	Decrease in some asset
Decrease in some liability	Increase in some liability
Decrease in net worth.	Increase in net worth.

Table I covers the debit effects and table II the credit effects. In analyzing a transaction under this rule the following steps are necessary:

(a) Determination of the accounts affected by the transaction
(b) Determination of the effects on each account
(c) Recognition of the nature of each account

As an illustration, assume the cash purchase of $500 worth of equipment. Cash (an asset) has been decreased and equipment (an asset) increased. According to table I an increase in an asset is a debit and equipment would be debited or charged with $500. According to table II, however, a decrease in an asset is a credit and so to complete the record, cash would be credited with the same amount.

In the next chapter we will take up in detail the application of these rules to a series of business transactions, in order that their use and their effect may be brought out more clearly.

REVIEW

Describe an account and state its value in accounting.

Why does the form of the account contribute to its value?

Explain the meaning of the terms debit, credit and charge.

State the circumstances under which an account is to be debited. To be credited.

Why are the debits and credits resulting from every business transaction equal in amount?

Summarize the rules for debiting and crediting.

CHAPTER IV

ACCOUNTING PROCESSES

1. *Routine is a part of bookkeeping.*—Business men often feel that they have neither the time nor the inclination to master accounting, because, as they say, it involves so much red tape. Some think that, if records were kept by others than bookkeepers steeped in their own methods, much red tape could be avoided. It is true that red tape is unnecessary. Many, however, confuse the term "red tape" with detail. Detail is an essential part of standard accounting procedure and can be deemed otherwise only by those who do not understand business requirements.

While accounting information in its final form is highly condensed it is compiled from a number of records and is the result of at least several operations. Moreover, financial data to be valuable must be accurate and capable of proof.

This is one of the most important phases of modern accounting procedure. Every step, every operation in connection with accounting work, was designed with the importance of accuracy and a means of proof in mind. The unyielding demands for these two characteristics have been the cause of much of the detailed procedure with which the operation of any

system of accounts is hedged. This is commonly known as routine.

2. *There is no substitute for routine.*—It would be possible, of course, tho somewhat inconvenient, to prepare intelligible accounts without following any standard procedure. Memorandum books with a page for each account could be kept and the various effects of each transaction entered by accounts on the pages of this book. When we consider how many transactions there are in even a small business, it is evident that, with such a method, accuracy would be doubtful and proof practically impossible. The best of clerks make errors, and errors in such a case could be traced only with difficulty and might entirely escape attention even tho the principles of accounting, governing the titles and types of accounts and the assignment of debits and credits, had been faithfully observed.

Consequently, it has been necessary to develop forms of records and rules of operation which, as far as possible, will compensate for human frailty, or at least will locate, thru a system of checking, the errors which occur.

3. *When standardized methods are essential.*—In summary, the work of bookkeeping is made up of three distinct phases: (a) the analysis of each transaction and the preparation of records which show the accounts affected and the resulting changes in each account; (b) the grouping of these changes under the separate accounts to which they relate, whereby the

total effects of all transactions on each account can be seen; (c) the grouping of all these accounts in financial statements.

The preceding chapters have covered the analysis of transactions. We must now concern ourselves with the form in which the records are to be made and with the work of collecting data in the accounts. It is necessary to defer the discussion of the grouping of accounts in financial statements until the work naturally preceding that phase of accounting has been explained. Since the principles of debiting, crediting and the construction of an account have already been discussed, the ground has been prepared for a consideration of the plan under which all these processes of accounting are bound together and made to function systematically and accurately.

4. *The mechanism involved.*—The machinery of accounting work, in the first instance, consists of that body of rules and general procedure which governs the operation of the individual system under examination. Secondly, it contains all the various forms of records for collecting and classifying this information. Thirdly, it embraces the statement or statements in which this information is summarized. The records, and to a considerable extent the statements prepared from them, are subordinate to the system by which they are controlled and thru which their information becomes intelligible.

Business transactions flow into an accounting sys-

tem much in the same manner that grain flows into the hopper of a mill. When information comes under the control of the system it is analyzed, classified and separated according to its nature, that is, according to the accounts affected and the kind of effects produced. After this separation is made, the information received in rough form is again given out in finished form, namely—that of statements. Its form in the statements is entirely different from that which existed when it first started "thru the mill"; the chaff has been winnowed out, the kernel has been ground up and graded and then the separate results of all the grist "coming to the mill" are presented in their most useful form.

5. *Accounting records.*—Accounting records may be divided into several different classifications. The most familiar classification, and the only one which helps in the study of accounting at this stage, is the division of the records into two classes: (a) books of original entry and (b) books of subsequent entry. This grouping arises from the fact that, to be complete in every respect, accounting must record business transactions as a continuous history in the chronological order in which they occur. The books in which these transactions are first entered and where the chronological order is maintained are known as books of original entry. These books are of extreme importance, both because they furnish ready reference to original transactions as they occurred and also

because it is here that each transaction is classified according to accounts affected and the debits and credits assigned to each account.

As a matter of fact, the work of classification which takes place in the books of original entry is absolutely vital to the presentation of any accurate and satisfactory information in the subsequent stages of accounting work. In the following pages of this chapter the forms of books of original entry are discussed. They should be given careful consideration and study. The method of abbreviation followed is such that one who examines a book of original entry can read into it all the historical description that would be supplied in a detailed written history of the business.

6. *Journal.*—The most important book of original entry is the journal. In fact, in many small organizations the journal is the only book of original entry and every transaction is entered and classified in this book. Separate columns are supplied for the debit amounts and for the credit amounts, with a third and wider column for the indication of the accounts which are to be debited and credited with a short description of the transaction. On pages 55 and 56 is shown the journal of Richard Brown, where the business transactions referred to in chapters II and III are recorded in journal form. The reader will note that every transaction, no matter what its nature, is entered there.

7. *Subdivisions of the journal.*—Where there is a great variety of transactions, the ordinary journal, in the form indicated, is impractical and cumbersome. To save cost and to shortcut the classification in the journal, separate journals are employed to record separate classes of transactions. Thus, for example, a cash journal or, as it is frequently termed, a cash

JOURNAL OF RICHARD BROWN

May 19—.	L.F.	Dr.	Cr.
1.			
Richard Brown engages in business this day with a cash capital of $15,000.			
Cash.	2	15,000 00	
To Richard Brown, capital.	1		15,000 00
2.			
Merchandise purchases.	3	7,000 00	
To cash.	2		7,000 00
For goods purchased this day from—			
2.			
Merchandise purchases.	3	4,000 00	
To J. Smith.	4		4,000 00
For goods purchased on terms 2/10/n 30.			
4.			
Furniture and store equipment.	5	600 00	
To Model Equipment Co.	6		200 00
Cash.	2		400 00
For furniture and store equipment purchased from the above mentioned vendor for $400 in cash and the balance in 30 days.			
4.			
Cash.	2	2,000 00	
To Richard Brown, capital.	1		2,000 00
For additional investment of proprietor.			
5.			
J. Jones.	7	3,500 00	
To merchandise sales.	8		3,500 00
For merchandise sold to him on terms 2/10/n30.			
12.			
J. Smith.	4	4,000 00	
To cash.	2		3,920 00
Net worth.	9		80 00
For the payment to him of the amount due on his invoice of May 2, less 2% cash discount.			

JOURNAL (*Continued*) Page 2

May 19—.	L.F.	Dr.		Cr.	
12.					
Net worth.	9	80	00		
To cash.	2			80	00
For the payment of salaries to date.					
15.					
Cash.	2	3,430	00		
Net worth.	9	70	00		
To J. Jones.	7			3,500	00
For the payment by him of the amount due on our invoice of May 5, less 2% cash discount.					
		39,680	00	39,680	00

book is introduced to record all transactions which affect the balance of cash on hand. Cash entries, therefore, are not entered in the main journal, but in this separate cash book. Again the sales, the purchases, etc., are oftentimes each allocated to separate books, and where several journals are used a few transactions only appear in the general journal.

In all journals, however, whether they be cash journals, sales journals, or journals of any other form, the same chronological order of transactions is maintained and the same historical and financial information is presented as when only one journal is used. In every book of original entry, the form and position of entry take the place of a great amount of descriptive writing.

8. *Books of Richard Brown.*—In chapter II several fictitious transactions were analyzed. In the present chapter the journal entries for these trans-

actions will be explained. Because the number of entries is small only one journal has been used. Furthermore, this will make the theory of accounting clearer, for while there is nothing difficult in the use of several journals, yet their introduction at this point might cloud the presentation of the fundamental principles of our subject in the eyes of the reader.

9. *Recording investment.*—Each transaction referred to in the preceding chapters had the two-fold effect of debit and credit. Bearing in mind the rules for debiting and crediting which have already been outlined, let us now apply them to these business transactions. Beginning on page 55 the reader will find illustrated the way in which these transactions should be entered in the journal.

The first transaction was Brown's investment of $15,000 cash, which he transferred to the business from his personal funds. This brought about an increase in the asset cash and consequently is recorded by a debit to cash. Brown's investment, which became the net worth of the business at that time, since he had no liabilities, was increased by $15,000 and should be credited. In this entry, as in all other entries, there is an equilibrium between the total debits and the total credits.

10. *Merchandise purchased.*—In the second transaction merchandise was purchased for cash, resulting in an increase in the one asset, merchandise, and a

decrease in another asset, cash. The completed entry is a debit or charge to merchandise of $7,000 and a credit to cash for the same amount. This is an exchange of assets and has no effect upon the financial condition of the business, excepting as the one asset is more usable for business purposes than the other.

The third transaction involves the purchase of merchandise, payment to be made at some later date. Here we have the receipt of an asset and the creation of a liability. The increase in assets is a debit and the increase in liability is a credit. The complete entry is a debit to merchandise and a credit to J. Smith for $4,000.

11. *Other transactions.*—The fourth transaction was the acquisition of furniture and fixtures at a cost of $600. Part payment was made in cash and the payment of the balance deferred till a later date. Three effects are indicated here: first, an increase in assets of $600, which means that the account affected, "furniture and store equipment," should be charged with $600; secondly, there is a decrease in cash of $400, which is expressed by crediting cash with that sum; and, lastly, a liability of $200 is created. To record this liability the vendor's account is credited with that amount.

Transaction number five is similar to the first transaction, being a further investment of cash, and consequently is treated in the same way, namely, by

charging cash and crediting Richard Brown's capital account with $2,000.

12. *Recording profits.*—In the sixth transaction the assets were increased by $3,500 while the assets given up in exchange were valued on the books at only $2,800. This transaction is different from the others in that while there was an exchange of assets the exchange was apparently not made on a basis of equality so far as the books of Brown's business were concerned. However, the confusion here is only apparent. Business is conducted to make profit, and the accounting system is, of course, intended to keep a record of this profit. The previous analysis of this transaction in chapter II proved that all profit goes to the credit of the proprietor's account, inasmuch as it represents an increase of net worth. Following out this assumption, the entry could have been made by charging J. Jones with 3,500, crediting merchandise with the amount given up, or $2,800, and crediting net worth with $700, the amount of the profit.

In actual practice, however, this method would not be feasible. Goods are bought at different prices and at various times. When put in stock they become inextricably mixed and any attempt to keep individual unit costs in the average business would be costly and often impossible. Consequently, it is not ordinarily practicable to record separately the profit on each sale at the time entries of the sale are made.

It is, of course, true that in some types of industry, such as the jewelry business and others where the individual units of product are costly, profits and costs on each sale could be determined. Yet even here it is seldom practicable to keep records on that basis. It is more desirable to follow the standard practice and record dealings in merchandise in the manner explained below.

13. *The standard method.*—In those journal entries which cover the acquisition of merchandise the purchase is charged to the account "merchandise purchases" at the cost value of the purchase. This permits the accumulation in one account of the cost of all goods bought. As sales are made, the amount of each sale, computed at the sales price, is credited to an account "merchandise sales." When all the goods purchased have been sold, the excess of the merchandise sales account over the merchandise purchases account is the gross profit on sales or the total amount which otherwise would have been credited to net worth thru a separate credit for the profit on each sale. At the end of the year, this excess is credited to net worth in one lump sum, as will be explained later.

14. *Allowing for inventories.*—Under this plan the merchandise purchases account is not an asset for the full amount charged to it, but only for such balance of goods as are unsold at any one time. Consequently, to determine total profits on all sales to

date, the cost of the goods sold must be obtained by deducting the inventory of goods on hand from the merchandise purchases account. To illustrate, assume purchases of $8,000 and sales of $9,000. It is found that of the goods purchased, $3,000 worth valued at cost remain unsold. The cost of goods sold becomes the difference between $8,000 and $3,000 or $5,000. The profit on the total sales then becomes $4,000 or the excess of sales price ($9,000) over the cost price of goods sold ($5,000).

Under these circumstances, the merchandise purchases account is not considered as an asset but as a charge against net worth, taking the same nature as salaries and other expenses. Offsetting this charge, on the other hand, net worth will be credited with the sales of merchandise and with the cost value of inventory of goods on hand at any time when a summary of affairs is being made. These three items then are to be treated as sub-divisions of the proprietor's net worth temporarily segregated, in order that more information may be obtained from the records. With this explanation, it will be seen that in debiting purchases and crediting sales, one follows the same rules as in the case of any other entries affecting net worth, and that sales, being an increase in net worth, are credited while purchases, a decrease in net worth, are charged.

15. *Liquidation of liabilities.*—The seventh transaction represents an entirely different type of business dealing. The business owed J. Smith $4,000

under an agreement whereby, if this debt were paid within a certain time, a discount amounting to $80 would be given. Had the payment been delayed until after the expiration of the discount period, the whole amount would have been due. Consequently, $4000 was the true liability. However, Smith, because he had use for funds, agreed in effect to pay a specific amount, namely $80, for the use of the balance of cash during the time between the date payment was made and the date that the obligation would be payable in full by the proprietor. The $80 is, in one sense of the word, rent or interest, for accountants put a cash discount of this type and interest in the same general category.

The accounting results of this transaction are the reduction of the recorded liabilities by $4,000, the reduction of the cash by $3,920, and a profit of $80 earned by paying the money ahead of time. The net worth is credited with the $80 of profit, cash being decreased by $3,920 is credited and the account payable to Smith is charged with $4,000 to cover the decrease in liabilities.

16. *Expense transactions.*—Transaction number eight is the payment of $80 in salaries to salesmen. The proprietor's account receives the benefit of this transaction, since it represents money expended to bring about increased sales upon which profits will accrue to the credit of the proprietor. When analyzed according to the rule of increases and decreases,

salary constitutes a decrease in net worth, since profits resulting from the salesmen's efforts have been credited to the proprietor and his net worth should be decreased by all expenses incidental to earning these profits. The entry, then, is a charge to net worth and a credit to cash of $80.

17. *Payments on account.*—The analysis of the last transaction involves no new point of view. It is the reverse of the liquidation of the liability mentioned. In accounting processes the term liquidation will be frequently used. It must be understood that both the assets and the liabilities of an organization should gradually work themselves into a state of convertibility. In other words, as liabilities become due there should be accumulated a sufficient amount of cash with which to pay them. In order to accumulate this cash and yet not have excessive amounts at any time, the assets should be so apportioned that they will mature and convert themselves into cash in amounts and at times when this cash will be needed to satisfy the liabilities coming due. The liquidation of liabilities means their payment thru the use of some of the assets of the business.

In the last transaction, an account receivable is being converted into a more liquid form, namely, cash. Cash, being increased by $3,430, is debited; net worth, being decreased by the amount of discount given or lost, as it is sometimes termed, is charged;

and the account receivable from J. Jones is credited with the full amount of the decrease in assets, or $3,500. Discount lost is a decrease in the net worth in just the same way as discount gained is an increase in net worth. In practically every organization there is a constant demand for cash and, to insure the conversion of accounts receivable into cash, it is customary to grant standard discount terms. Whenever a customer takes advantage of these discount terms and makes payment within the time specified, the proprietor gives to him a fee for the use of his money in advance of the time it is due.

18. *Journalizing.*—No matter in what book or form of record an entry is made, it retains the characteristics of a journal entry, since a journal is a form by which the accounts involved in a transaction are indicated, debits and credits assigned and the monetary effects expressed.

The foregoing is but one illustration of the many forms of journals which may be used. The essential characteristics, whereby the monetary values, the accounts, the debits and credits and a brief explanation are given, are always unchanging. For present purposes, the principles involved in the various processes are more important than the practices or prejudices of bookkeepers, and our discussion will be based upon the standard two column journal form here illustrated.

One of the important but frequently underestimated parts of every journal entry is the explanation,

which should be entered directly under the account titles of each entry. It must be remembered that accounting is the process of recording the financial history of an organization and, while form and position take the place of a great deal of unwritten history, yet sufficient explanation must be made for each entry so that its full history can be understood. It will be observed that, in the journal, the names of the accounts to be debited are entered at the extreme left, so that their relative position in respect to the names of accounts to be credited is the same as that of the amounts charged in respect to the amounts credited. The name of the account to be credited, sometimes preceded by the word "To" is written on the line below the name of the account to be debited and slightly to the right. The use of this word "To" is arbitrary and follows a long-standing custom among bookkeepers. It is now seldom put down in writing, being used mostly in expressing entries orally.

The reader will note that this form contains one column for dates, accounts and explanations, one monetary column for the money value of the debits and one monetary column for the money value of the credits. To the left of the first monetary column is found a small column called a folio column the use of which will be explained in section 21 following a discussion of the ledger and the ledger accounts.

In all entries an equality of debits and credits must exist. The terms debit and credit arose out of the necessity of classifying transactions by accounts and

making use of the account form to give added informative value to the entry itself. Journalizing is the term used to express the first accounting record made of a transaction. It is a process to which every transaction must be subjected before it can be absorbed in the accounting records. It makes every transaction merge itself in form and substance with the other transactions already recorded. Accountants soon get in the habit of thinking of transactions in terms of and in the form of journal entries.

They think of accounts, on the other hand, in terms of the balances in these accounts and their relations to other accounts. For example, the cash account in the mind of the bookkeeper is considered only with respect to the cash balance that it contains, unless he is specifically investigating all receipts and disbursements or particular kinds of receipts or disbursements. The cash balance he considers in its relation to the accounts which must be paid out of it, etc.

19. *Books of subsequent entry.*—The chronological journal records discussed in the preceding sections are essential to preserve the continuity of the entries and to permit the analysis of transactions by accounts and in accordance with their effect on these accounts. The chronological record, however, is still an unclassified record in that no provision is made for grouping all transactions by accounts. For example, there may be many transactions which have increased or decreased the supply of cash on hand. In the journal these transactions will have been spread

over a number of pages and there is no first-hand information as to the present status of the cash account or the total changes that have been produced in it. It is necessary, then, to provide a means of regrouping these journal entries in such a way that there will be gathered together under one heading all the items which affect a particular account.

For instance, the total purchases for the month are made up of many transactions entered into at different times and for varying amounts. There are a number of things which every business man wishes to know concerning his purchases. For example, he requires a record of each individual purchase, showing the vendor, the cost of the goods bought and the date. He also wants the total purchases of each class of goods acquired and his liability in total, as well as the liability to each individual vendor. While this information could all be obtained from an analysis of the journal, yet each time it is desired a special computation would be required. Furthermore, there would be no proof that the information as finally obtained was accurate.

20. *The ledger.*—Consequently, it would be almost a hopeless task to attempt to pick out from one journal all the transactions that affect any particular phase of the business. What is required, therefore, is a classified record of each separate group of facts, or in other words, a classified record of the total changes in each account used. All these requirements are automatically met in the accounting book

known as the ledger, which is identified as a book of subsequent entry, since it is the book to which the entries in the journal are transferred. Every entry in the journal must be transferred to some account in the ledger.

In the ledger a separate page is given to each account and every account mentioned in the journal must have a place in the ledger. The journal analyzes transactions by the accounts affected; the ledger groups them by accounts.

The ledger is a highly important unit in the accounting system, since it is the means of sorting and classifying all business transactions. The accuracy of the information in the ledger, however, depends chiefly upon that of the books from which this information has been drawn, providing, of course, that no mechanical error has been made in the transfer of this information.

On page 41 the form of an account was illustrated. This illustration is actually the form generally followed in the ledger itself, each page being simply a replica of the form illustrated here. There are, of course, variations and innovations adopted sometimes because of the personal likes or dislikes of the accountant and sometimes because they are particularly fitted to certain individual lines of business. It is not essential at this time that we concern ourselves with these variations in form; some consideration will be given to them in later chapters. In the working out of the fundamental principles of accounting it

is better for illustrative purposes to use only standard forms.

21. *Posting.*—The mechanical process of transferring the amounts from the journal to the ledger is known as "posting." It is a task requiring extreme accuracy and care. Amounts which are debits to certain accounts in the journal will naturally be transferred to the debit side of the same accounts in the ledger, while credits will obviously be entered on the credit side. Various errors must be guarded against such as mistakes in the amounts to be transferred, posting to the wrong account, transferring a debit as a credit or vice versa. Much depends upon the natural accuracy of the bookkeeper himself. Modern accounting processes, however, have devised certain aids and checks, which help to locate errors that have been committed. In the account on page 41 the reader will find two small columns, No. 4 and No. 9, which were not explained when the account form itself was discussed. Also in the journal form on pages 55 and 56 there was included a narrow column to the left of the monetary column and the note was made that this column would be explained later.

These three columns, namely, columns 4 and 9 in the ledger account and the folio column in the journal, serve as places for posting references. In columns 4 and 9 of the account is shown the particular page of the journal from which that individual amount has been transferred. The reference column in the journal shows the page in the ledger on

which that account is carried and to which the amount in the journal has been transferred. This provision for cross reference becomes highly important when errors are being traced or when the source of an entry in the ledger account is being investigated.

22. *Posting procedure.*—The customary practice is to post all the debits at one time and then all the credits. This minimizes the danger of posting a credit as a debit or vice versa. The bookkeeper, starting at the top of a journal page, finds the first debit entry in the monetary column, turns to the proper page in the ledger, enters the amount to the debit of the account in the ledger, places the number of the journal page in the left hand folio reference column in the ledger account, checks back again to his journal to make sure that he has transferred the right amount, and then places the ledger page of the account in the journal folio reference column.

23. *Brown's ledger.*—The accounts shown on pages 71 and 72 are representative ledger accounts. They contain the postings of the transactions of Richard Brown which have been used to illustrate various phases of accounting.

Because of the small number of transactions, the space given to each account is short. Ordinarily, a full page of a ledger is allowed for each account, tho when the number of entries to accounts are few several accounts will be placed upon one page. Each account will have its own individual heading and title,

LEDGER OF RICHARD BROWN

RICHARD BROWN, CAPITAL 1

						19—					
						May	1	Cash	J	$15,000	00
							4	"	J	2,000	00
										17,000	*00*

CASH 2

19—						19—					
May	1	R. Brown	J1	$15,000	00	May	2	Mdse. purch.	J1	$7,000	00
	4	R. Brown	J1	2,000	00		4	Furniture, etc.	J1	400	00
	15	J. Jones	J2	3,430	00		12	J. Smith	J2	3,920	00
				20,430	*00*		12	Net worth	J2	80	00
										11,400	*00*

MERCHANDISE PURCHASES 3

19—											
May	2	Cash	J1	$7,000	00						
	2	J. Smith	J1	4,000	00						
				11,000	*00*						

J. SMITH 4

19—						19—					
May	12	Cash & disc.	J1	$4,000	00	May	2	Mdse. purch.	J1	$4,000	00

FURNITURE AND STORE EQUIPMENT 5

19—											
May	4	Sundries	J1	$600	00						

MODEL EQUIPMENT CO. 6

						19—					
						May	4	Furniture, etc.	J1	$200	00

J. JONES 7

19– May	5	Mdse. sales	J1 J1	$3,500	00	19– May	15	Cash & disc.	J2	$3,500	00

MERCHANDISE SALES 8

						19– May	5	J. Jones	J1	$3,500	00

NET WORTH 9

19– May	12	Salary	J2	$80	00	19– May	12	Disc.—J. Smith	J1	$80	00
	15	Disc.—J. Jones	J2	70	00						
				150	*00*						

so that the form of such a ledger will always be much the same as that here illustrated.

Up to this point of our discussion it has seemed best to use the account "net worth" to distinguish the excess of current profits over current expenses from initial capital or the investment of additional funds. This account is used here only to illustrate accounting principles, since, as will be pointed out in chapter V, in actual practice its place will be taken by several subsidiary accounts similar in their nature to merchandise purchases and merchandise sales.

24. *Importance of processes.*—Too much emphasis can not be placed upon the observance of standard routine and rules. The executive may feel that it is all a matter of little import to him, since he will never have to carry on the actual work, and that his only interest in the matter is to observe and interpret the results. Interpretation of accounts, however, is

the act of drawing from the records all the ideas, facts, impressions and history that can be obtained about the business. The more a business man understands about the collection of accounting information, the more will he appreciate the advantage of routine; the more clearly he understands the necessity and the functioning of forms and procedure, the better will he be equipped to draw from his own records the maximum constructive help. Furthermore, he will be better able to visualize what is lacking in his whole system of records and to take the steps necessary to add still further value to it. As a matter of fact, the value of bookkeeping knowledge lies more in the light which is thrown upon general conditions than in the specific facts that are portrayed in any particular account. The importance of standardized methods is emphasized in the next chapter, where the method of proving accounting records is outlined.

REVIEW

What is the essential element of accounting procedure?

Describe journalizing.

State the purpose of the setting up of separate accounts for merchandise purchases and sales.

How does the amount of inventory of goods on hand affect the book-record of profits?

Explain the term, "posting."

CHAPTER V

THE TRIAL BALANCE AND OTHER PROOFS

1. *Accounting system composed of processes.*—In the previous chapters the general phases and individual processes of accounting have been discussed. Setting up accounts, determining debits and credits, entries in the journal and postings to the ledger accounts are all parts of operative accounting or bookkeeping. All along, emphasis has been laid upon the functions of system, the method of controlling this work and insuring accuracy in it. The composite whole, moreover, being made up of these individual processes, must depend upon them for its mechanical and technical accuracy. Having discussed the various elements we can now proceed to weld them into a complete unit which will illustrate the accounting systems now in use.

The method of accounting generally practised in English-speaking countries and in most of the other countries of the world is popularly known as double-entry bookkeeping. This is the type of system which we are discussing. It is the most advanced and the simplest system as well as the one which gives the greatest amount of information. In some of the continental countries of Europe, other systems are fol-

lowed. These, however, are merely adaptations of the double-entry system varied to meet the requirements of the laws of those countries. For example, in certain countries the law requires that all transactions of a concern regularly engaged in business shall be entered in a single main journal. This ruling prohibits the use of those subsidiary journals which play an important part in accounting for the larger organizations when not so restricted. The other requirements are of the same general nature and may be passed over without discussion.

2. *What is double-entry bookkeeping?*—Bookkeeping is a process for recording business transactions. It may be said that any form of business record should be a medium for the collection of related data. Yet the collection of ordinary statistics, while governed by definite rules of procedure, does not afford the opportunities for proof which, as will be seen, are important attributes of double entry. Form of procedure, standardized routine, journalizing, equality of debits and credits, uniformity of practice and possibility of proof, then, are the distinguishing characteristics of double-entry bookkeeping. It derives its name from the fact that every transaction is looked upon as producing two effects of opposite nature, that is, debit and credit. How these two effects, or what might be called a double effect, arise out of each transaction has already been explained.

3. *Importance of accuracy.*—Unless accounting

records afforded the means of proving the accuracy of results expressed, they would hardly play their present important part in the conduct of business. Mere improved memorandum records are always looked upon with suspicion and are valued chiefly as they supplement the accounting records or are corroborated by them. Moreover the proof derived from the equality of debits and credits is not the only index of reliability which bookkeeping possesses. The very rigidity of its procedure helps to make the results expressed more accurate and to clothe them with an air of reliability. Furthermore, thru the standardized procedure which he follows and the means of proof afforded thru posting references and other checking methods discussed later, the accountant is continuously testing his figures and taking every possible step to insure their accuracy.

4. *Preserving equality.*—The chief factor, however, which contributes to the reliability of accounting records is the constant equality of debits and credits which exist thruout every step in accounting work.

The reader has noted in the journal of Richard Brown shown on pages 55 and 56 that in each individual entry there given the debits and credits are equal. He will also note that the totals of all debits and credits have been carried forward from page to page and shown in one sum at the end of the last entry on the page. These totals must agree, according to the principle of mathematics, that equals added to equals must result in equals.

Continuing the above bookkeeping processes, all debits and credits were then transferred to the ledger accounts shown on pages 71 and 72. Here the debits and credits are split up and classified by accounts so that we no longer have the same arrangement that was shown in the journal. However, there are still the same number of entries, the only difference being that they have been stated in a new order and are now grouped by accounts instead of by transactions.

5. *Proving accuracy.*—Since accuracy is the constant aim of the bookkeeper, it is desirable that the accuracy of these transfers to the ledger be proved. This we can do by totaling all the debits and all the credits in the ledger and seeing that they agree with the respective totals in the journal. In respect to any one account, however, the separate debits and credits mean little until they have been totaled by accounts and the net excess debit or credit for each account ascertained. Nothing is gained at this time, therefore, by listing the individual debit and credit entries in the ledger accounts.

Consequently, the first step in proving begins by totaling all debits and credits in each account. Each total is entered in small figures under the last amount posted in each monetary column. If the total debits and credits are then listed on a proof sheet in separate columns opposite the names of the accounts to which they relate, this list will give the total debits and credits for every account and also the total of all debits and credits as well. If the total of all debits

equals the total of all credits we have reasonable proof that the amounts in the journal have been transferred correctly and the entries in each account accurately added. If Richard Brown's ledger were proved in this manner the total of each account as shown in the ledger would be listed as follows and the accuracy proved by seeing that the total debits in all accounts taken together equaled the total credits.

PROOF OF LEDGER
OF
RICHARD BROWN

Accounts	*Debit Totals*		*Credit Totals*	
Richard Brown, capital			$17,000	00
Cash	$20,430	00	11,400	00
Merchandise purchases	11,000	00		
J. Smith	4,000	00	4,000	00
Furniture and store equipment	600	00		
Model Equipment Company			200	00
J. Jones	3,500	00	3,500	00
Merchandise sales			3,500	00
Net worth	150	00	80	00
Totals	$39,680	00	$39,680	00

The totals here obtained are the same as the totals in the journal, being $39,680 in each column. Nothing has been done but to total up the respective money columns of every account in the ledger and then to enter in the proof list the amount of these totals in

two monetary columns opposite the account to which they relate.

6. *Proof of balances the goal.*—If the totals of debits and credits shown in the listing given above are equal and if they equal the totals of debits and credits in the journal, that is almost sure proof that every amount contained in the journal has been correctly transferred to the various ledger accounts. Actually, however, the executive or the bookkeeper is little interested in the total debits or total credits of any account. His interest lies in the balances of these accounts. Consequently, what is wanted is a statement of account balances rather than a statement of total debits and credits in each account. To obtain this, we simply subtract the debits from the credits in each account, or vice versa, and then relist them as follows:

TRIAL BALANCE

OF

RICHARD BROWN

Accounts	*Debit Balances*		*Credit Balances*	
Richard Brown, capital			$17,000	00
Cash	$9,030	00		
Merchandise purchases	11,000	00		
Furniture and store equipment	600	00		
Model Equipment Company			200	00
Merchandise sales			3,500	00
Net worth	70	00		
Totals	$20,700	00	$20,700	00

In drawing off such a list of balances we omit any account such as that of J. Smith, which has no balance. This listing of net open balances does not disturb the equilibrium of debits and credits since we have done nothing more than subtract equals from equals. In actual practice, this balancing of each account is done as the accounts are transferred to the proof sheet from the ledger and only the net balance is shown in the proving list. This procedure affords a further check since it also proves the mathematical calculations involved in adding the total debits and total credits and in arriving at the balance in the account by subtracting the one from the other.

The list of account balances thus drawn up is known as a trial balance. Besides being a check upon the accuracy of the ledger, the trial balance forms the basis for further accounting processes when the financial statements are to be prepared.

7. *Tracing errors.*—If the trial balance does not balance, that is, if the total of the debit balances does not equal the total of the credit balances, then the first act of the bookkeeper is to trace down his errors and make the necessary corrections. If his journal is in such a form that he can draw off separate totals of its debits and credits and prove that there has been no error in the individual entries made therein, then there manifestly must be one or more errors committed in the transfer of these items to the ledger accounts. By means of the folio numbers which he has

shown in his reference columns both in the journal and in the ledger, he checks back entry by entry until he finds some amount that has been posted with an incorrect money value. There may be one or many errors of this sort and conceivably considerable time may be required for tracing them. A number of expedients may be resorted to for the purpose of insuring greater accuracy in the work of posting to the ledger and obviating the necessity of laborious checking to locate errors. These are outlined in a later chapter.

8. *Limitations of the trial balance.*—A trial balance is generally considered a proof of the accuracy of accounting records and, if the trial balance "balances," the bookkeeper often feels that he has no further worries with regard to errors in the work covered by that trial balance. As a matter of fact, however, there are a number of errors which a trial balance proof will not disclose and which only a thoro system of internal check or sheer luck will uncover. These errors are:

(a) The omission of a debit and credit of equal amount may be made when posting from the journal to the ledger. A complete entry may be omitted from the posting and the trial balance will still balance. If the bookkeeper glances over each journal page after the posting is completed, however, he will perceive any omission since there will be no page refer-

ence opposite that item in the posting folio column.

(b) Two or more errors in posting may be made, the total debits and credits of which exactly offset each other. Thus, cash receipts may be overstated by $100 and merchandise sales account overstated by a like amount. The equality of the two errors leaves the equilibrium of the trial balance undisturbed.

(c) An item may be posted to the wrong account. A debit to one account may be incorrectly posted as a debit to another account or a credit to one account may be incorrectly posted as a credit to another account. If the amount has been transferred correctly and the correct position maintained, as regards debit and credit, the transfer to the wrong account will not be disclosed by the trial balance.

(d) There may be an omission or an incorrect statement of a transaction in the books of original entry. Since such errors affect both sides equally, the books will still balance.

Unfortunately, there are no positive methods of avoiding errors. However, as before mentioned, a comprehensive system of internal check will do much toward eliminating them and the employment of capable bookkeepers will make the danger of errors of this nature negligible. Furthermore, as one

learns accounting and becomes familiar with the proper relationships between accounts, large errors of this character will be apparent thru the distorted relations which they introduce into the accounts.

9. *Other purposes of the trial balance.*—Besides serving as a proof of the accuracy of the bookkeeper's work, the trial balance plays another important part in accounting work. It is by far the most convenient source of information for determining the balances of accounts or the total of any particular class of accounts. Reference to the ledger and a search thru the accounts there, together with a compilation of the balance in each, would be a tiresome and cumbersome job. The trial balance drawn off monthly lists the balances in each account and thus permits of indefinite regrouping and reclassification in financial statements to express any particular kind of information that may be desired.

10. *Reconciling the cash account with the bank balances.*—Periodically, preferably at the end of each month if the bank statements are so timed, the cash balance, as shown by the books, should be reconciled with the bank statement. In this connection it should be observed that the best accounting practice requires that all money received in a business be deposited in the bank and that none of it go into the cash drawer for current use. Mixing receipts with funds held for miscellaneous cash payments puts temptation in the way of the bookkeeper and cashier

and opens possibilities for them to hold out money, make minor defalcations, or even at times succeed in making away with relatively large sums.

Proceeding then on the assumption that all receipts are deposited, the steps involved in reconciling the balance of cash on hand as shown by the books with the balance as shown in the bank statements are as follows:

(a) The check book must agree with the cash account. This should be no hard task, since all the information in the cash account is obtained from the check book, and the two should always be in agreement.

(b) The reconciling of the check book with the bank statement. This latter step is not so simple, tho even here the procedure is not difficult, once the principle underlying it has been mastered. Outside of mathematical errors, which are easily caught, the only difference between the balance of cash, as shown by the bank statement, and the balance, as shown by the check book, must result from one or more of the following causes:

(1) A deposit may have been made after the close of banking hours on the last day of the month, which will have been entered as a part of the current month's deposits in the check book but not credited to the company's account by the bank until the following month.

(2) Checks drawn and dated towards the close of the month and deducted from the balance of cash, as shown in the check book, may not reach the bank until sometime in the following month and hence will not have been deducted by the bank at the time their statement is made up.

To facilitate proof, running totals in the check book should be kept, which will show separately the total of the balance of cash at the beginning of the month, plus all the deposits made during the month, and the total of the checks drawn during the month, plus whatever checks were outstanding at the beginning of the month.

Richard Brown's check book, for example, would show the following results:

Total deposits to May 15	$20,430.00
Total disbursements to May 15	11,400.00
Balance on deposit May 15	9,030.00

The fact that the balance in the check book is stated as $9,030 does not prove that balance correct. The canceled checks returned by the bank with the bank statement should be checked in detail against the stubs of the checks drawn and a list made of all outstanding checks which have not yet been presented at the bank. Thus, assume that there were two outstanding checks on Richard Brown's account, one for $400 to the Model Equipment Company and one of

$3,920 to J. Smith. Assume further that the last deposit made by Brown was not credited by the bank until after the fifteenth of the month, and that this deposit was for $3,430. We would find that the balance reported by the bank exceeded Brown's record by the total of $890. Since the balance as shown by the bank's statement was $9,920 the two records of cash must be reconciled.

On the last page of the check book for the month the following schedule should be prepared:

May 15, 19—	Bank balance as per bank statement		$9920
	Less outstanding checks		
	# ———	$3920	
	# ———	$ 400	4320
			$5600
	Add deposit of May 15— not yet entered by bank		3430
	Balance as per check book		$9030

The reader will note from this that the balance as shown by the bank statement is reduced by the amount of checks outstanding which have not yet been presented and is increased by the amount of deposits which legitimately belong to the business of the month of May but which have not been so handled by the bank. In starting off the check book for the next succeeding month, the balance to be brought forward should be the balance shown in the bank statement and to it will be added any deposits not credited by the bank. At the heading of the disbursement column in

this check book there should be placed the total amount of outstanding checks.

11. *Modern accounting.*—Thus far we have proceeded as if there were only three classes of accounts involved in an accounting system, namely, assets, liabilities and net worth. Those who have had any experience in accounting realize that while our assumption may be sound in principle, it applies only to the simplest of systems and does not produce the type of information that the executive should have. The succeeding chapters of this volume will be devoted to a consideration of accounting in its more advanced stages as it is practised today.

The purpose of the foregoing discussion has been to develop in a logical manner the basic principles of accounting procedure. Some of the discussions may have seemed rather academic and simple. The object, however, has been to bring out the comparatively few principles by which all accounting processes are governed and guided. These principles are the basis for the operations of the most intricate accounting system in existence today.

12. *Summary of accounting fundamentals.*—True, some of these above mentioned principles may be modified or elaborated upon, but as far as double-entry bookkeeping is concerned, the fundamental considerations are as follows:

(a) A system of rules and procedure which governs all methods and operations.

(b) A system of accounts by which business information is collected in monetary terms.
(c) Journalizing transactions for recording purposes—or in other words, assigning debits and credits to the accounts affected.
(d) The use of standardized forms and the assignment of definite positions to certain phases of transactions in order that form and position may take the place of lengthy narrative in journalizing.
(e) The transfer or posting of transactions to the proper accounts in the book of final entry—the ledger.
(f) Maintenance of the doctrine of equality in all records whereby a partial proof of the accuracy of the work becomes possible.
(g) The summarizing of account data into statement form for executive use.
(h) Uniformity of principles thruout all business organizations.
(i) Application of these principles to the particular conditions existing in each individual concern so that the accounting system will reflect the condition of that particular business. This thought is emphasized in the Modern Business Text on "Accounting Practice" and is a distinguishing feature of every accounting system which functions properly. Every business has its own peculiarities of procedure and every business

executive is different from every other executive. Only in so far as it is designed to bring out the conditions of the individual business and reflect the development of the executive policies does the accounting system really serve as a basis for executive control and render the aid that it should in the determination and formulation of executive policies. The selection of accounts, the subject matter of the next chapter, plays an important part in the adaptability of an accounting system to the needs of a particular business.

REVIEW

What is the fundamental principle of double-entry bookkeeping?

Review in your mind the various stages in accounting work at which a partial proof of accuracy is possible.

Describe a trial balance and the purpose it serves.

Is a trial balance an absolute proof of accuracy? Explain.

State how you would proceed to reconcile the cash account with the bank statement.

CHAPTER VI

CLASSIFICATION OF ACCOUNTS

1. *Accounts are the foundation of an accounting system.*—Accounts are the means thru which an accounting system collects related business facts in permanent form, so that the net result of each set of facts and the combined effect of all can be observed. Since accounts play such an essential part in accounting procedure and interpretation, more than ordinary care and consideration must be given to the selection of accounts and to the fundamentals of account construction.

The accounts in an accounting system are much like words in a language. There must be a sufficient number of accounts to portray properly the history of business and to preserve an individual record of the various classes of transactions. The titles given to accounts should clearly indicate the nature of the information collected under them. Consequently, successful interpretation of accounting records requires, as a preliminary, the grouping of transactions in expressive accounts.

In assimilating transactions into the accounting records, their effects are analyzed, combined with other

similar data and then presented in a new form under an appropriate account heading. Each account, therefore, contains all transactions as they relate to the particular phase or part of the business indicated by its title. From this it will be evident that a principal attribute of an account is that it sets forth results in total. The cash account, for instance, shows the effect of all cash transactions for a certain period of time on the supply of cash on hand.

2. *Accurate grouping of results makes accounts useful.*—Outside of their use for reference purposes, the value of accounts lies chiefly in the aid which they bring to the executive in the control and development of his business. Interpretation of the accounts means an examination of the balance in each account and then a study of the relation of each account to other associated accounts. This in turn calls for a general familiarity with the conditions of the business, i. e., the causes which have led up to the results shown in the accounts.

The skilled interpreter draws much from his records that does not appear upon their face. The grouping of more or less unrelated items together under one account title will result in confusion and misleading inferences. Therefore, the first principle to be observed in selecting the accounts which are to be incorporated in any system is to establish a sufficient number of accounts, so that each individual account will reflect the results of only one particular type of transaction and so that there may be an account for

every phase or factor that goes to make up the conduct of the whole business.

In the illustrative list of accounts given on pages 71 and 72 there are accounts with all the assets owned by the business sufficiently segregated so that no two items are grouped together unless they are closely related. The same applies to the liabilities, since there is a separate account for every kind of individual debt. Asset and liability accounts are standard and do not require further discussion here.

The net worth account, however, can not be so casually dismissed. Changes in net worth are caused by the many factors which play a part in business progress, so that one account for net worth is inadequate to bring out the facts essential to accounting control.

3. *Need for classified data.*—The executive is keenly interested in the amount of his profits or losses, i. e., the total increase or decrease in his net worth, but the mere knowledge of the net change alone will not aid him greatly in planning for the future. The certainty that his business has not made money in the past would, of course, lead to a more strenuous effort to earn profits in the next period. But without a knowledge of how his losses came about, and in what respect expenses were too high or sales too low, the executive has very little information upon which to base an attempt to improve his condition.

Business men are constantly exerting every effort to expand their business and increase their profits or

convert deficits into profits. When investigating losses or seeking ways of increasing profits, the first queries of an executive naturally are for a record of his expenses in previous years, sources from which his income has been received, the relation of various expenses to income, the lines of product upon which losses have been incurred and those upon which profits have been made. Furthermore, he asks for comparisons of conditions and relations in one month or year with those of previous periods.

4. *Classifying changes in net worth.*—The means employed to bring this type of information to the executive is the setting up of special accounts in which to record clearly the various sources of income and causes of expenses. In other words, all transactions that produce a change in net worth are analyzed and their effects subdivided into groups of like elements. Thus, if the business were that of selling grain, we would discover that among the credits to the net worth account would be found the profits on the various kinds of grain handled and, instead of having one single record of the total amount of sales and profits made, there would be separate records for each individual product handled.

5. *Subdivisions of purchase and sales accounts.*—Transactions in the product handled are considered from the two aspects of purchase and sale. Take the assumed case of this grain dealer again, in which quantities of corn, wheat and oats would be purchased for resale. As grain is purchased the purchase cost

of each commodity acquired is charged to a separate purchase account. When grain is sold, a separate sales account is set up for the sales of each product. At any time the difference between the purchase account and the sales account of any commodity represents the gross profit on that commodity, providing, of course, there is no stock on hand.

6. *Inventory adjustment.*—Stock on hand at the beginning and end of the period, of course, makes necessary some adjustment before gross profit can be found. If there is some merchandise on hand at the beginning of the period then its cost value should be added to the purchases for the period in order to get the total purchase cost of merchandise for which the business must account. Of this total a certain amount is accounted for by being on hand; the difference must then represent the cost of the goods sold. The difference between the cost of the goods sold and the sales price received, as shown by the sales amount, obviously represents the profit on the sales for the period.

This proposition works out as follows: Assume an inventory on January 1 of $1,500 worth of wheat, the purchase of $5,000 worth of wheat during the month of January and an inventory of $2,000 worth of wheat at the end of January. Sales during this same period totaled $6,000. The purchase cost of the goods sold is $4,500 and is arrived at as follows: First add the inventory on hand at the beginning, $1,500, to the cost of goods purchased during the

period, which was $5,000. This makes a total of $6,500 to be accounted for. Since there is an inventory of $2,000 on hand at the end of the period, the cost of the wheat shipped out during the period must have been the difference between the $6,500 and the $2,000, or $4,500. The sales price of the goods sold was $6,000; consequently, the gross profit on the sales of wheat for that month was the difference between $6,000 and $4,500, or $1,500.

7. *Economic accounts.*—All accounts set up to differentiate the various classes of charges and credits to net worth are called economic accounts. They are so called because they reflect the various economic changes in the business. There are two general classes of these accounts, namely, income accounts which record increases in or credits to net worth and expense accounts which contain decreases of or debits to net worth. All economic accounts are in effect subdivisions of net worth, created to disclose a detailed analysis of the income, expenses and profits for the accounting period. If there were no necessity of carrying accounts to point out sources of profit and causes of expense, all such charges or credits could be made directly to net worth and the same final result secured as far as the determination of profit is concerned. The two accounts, merchandise purchases and merchandise sales, illustrated in the books of Richard Brown, are subdivisions of net worth. They are, in other words, economic accounts.

Whenever the net profit for an accounting period,

whether it be a month, year or any other interval, is to be ascertained, the total of the expense accounts, including the merchandise purchases account, as adjusted by the opening and closing inventories, is deducted from the total of the income accounts and the difference so obtained is the profit for the period under consideration.

8. *Expense accounts controlled by income accounts.* —While expenses, particularly those resulting from the acquisition of commodities for resale or for manufacturing purposes, arise before any income is earned by the business, yet the classification of income governs the classification of expenses. This is true because expenses are customarily incurred only that they may bring in income either immediately or at some future time. In other words, every gain is offset in some measure by the expense incidental to it. Referring again to the hypothetical case of the grain dealer previously mentioned, we find three main sources of income, namely, corn, wheat and oat sales. He would not be satisfied to know that the total profit for any month was any particular sum; he would want to know also the amount of profit derived from each class of commodity handled. Consequently, he would have separate sales accounts one for each of the three commodities. This would give him his gross sales of each kind as well as the total of all three.

In order, then, to determine the profits made on any particular commodity, in addition to profits on

total sales, he would have to classify his expenses upon the same lines as those used in classifying his income. This is why the classification of income accounts determines that of expense accounts.

9. *Income accounts.*—Income accounts in general are those accounts which record the credit side of transactions on which a profit is certain or expected. The income accounts, showing the total sales classified as the nature of the business demands, are known as primary income accounts. Thus, it is customary to have a separate account for the sales of each line of product. Sometimes classifications are made by departments and again by territorial divisions. They are, as previously said, always opposed by specific expense accounts which relate to them and reflect in each instance the cost of obtaining that particular income.

The income accounts, representing items of income which arise only occasionally, such as the sale of scrapped material, waste, etc., or the receipt of interest, discount earned and the like, are called secondary income accounts. Accounts should be provided for all forms of secondary income, so that unlike items will not be grouped together. The extent, however, to which accounts shall be multiplied will depend upon the individual conditions encountered.

Usually there are no specific expenses to assign to these secondary income items and oftentimes they are not items subject to any direct reduction because of expenses involved in their acquisition. Thus the total

amount involved is a profit. Interest earned, for example, does not contain any element of cost and usually is not related directly to any expense account unless it be interest on money borrowed.

10. *All sales are income.*—A procedure which at first glance may appear inconsistent is that of crediting to the sales account sales which are made at a loss. This seems contrary to the rule that sales accounts represent income and should be credited only with transactions that bring in income or profit. There are two main reasons why sales at cost or less should be credited to the sales account the same as sales on which a profit has been made.

These reasons are (a) that a complete record of total sales can be thus obtained and (b) in actual practice, with the exception of a few lines of business, it is impracticable to attempt to determine at the time of each separate sale whether or not a profit is made on it. The cost of the commodities made or purchased for resale varies so much that the cost of any individual item sold is frequently unknown and if known would require too much computation and record keeping to have the cost of each matched against its sale. Frequently, also, sales at reduced prices will be made in order to stimulate business, create a market for a new product or for kindred reasons.

11. *Expense accounts.*—Mention has already been made that most of the expense accounts carried in any set of books relate directly or indirectly to the

several sources of income derived by the business in order that the profit on each individual line of product handled may be ascertained.

The expenses of a business divide themselves finally into four classifications. The first general classification is the cost of goods sold. In a manufacturing concern this will embrace the raw materials purchased for manufacture, the labor expended upon these materials in their manufacture and any other expenses that arise in connection with the operation of a factory. The second class of expenses are those related to the cost of selling the commodity. These two classes of expenses should be divided into the same general account groupings which have already been set up for sales so that by deducting expenses from sales the selling profit as well as the cost of goods sold can be obtained for each line of product.

There is a third classification of expenses which usually are not distributed over the products, since they are incurred for all products alike and not separated in any way in their application. These expenses are the general administrative expenses of the business, such as officers' salaries, office expenses and the like. It is seldom feasible to attempt to distribute these expenses by products, altho an arbitrary apportionment is sometimes made, each product or line classified separately in the income accounts being charged in the proportion which its sales bear to total sales. The fourth classification embraces those items of expense or loss which have to do with the financial affairs of

the organization. In this connection, the reader should note that accounting procedure differentiates between the results of the conduct of the ordinary business of an organization and those which arise from purely financial transactions.

Such items as rent, interest paid, discount lost, etc., form a group of accounts which relate to financial matters, on the principle that these items are expenses which arise because the organization has not at its command sufficient cash to finance itself. The amount of each class of expense which arises because of any deficiency of capital should be separately recorded. Insurance, taxes and the like are also included in this general financial section because they represent expenses which pertain to the protection of capital invested.

Against these financial expenses are opposed the financial earnings which arise from the profitable use of cash, such as interest earned and discount gained. The net difference between these two sets of accounts is recognized as the financial profit or loss for the period. Sometimes, the mistake is made of carrying discount paid and discount received in one account. Besides clouding the facts as regards these two items, this practice does not disclose the amounts of financial expenses and gains and no true comparison is possible. In the Modern Business Text on "Financial and Business Statements" the reader will find this principle developed in greater detail, and each one of the financial accounts fully discussed.

12. *Expenses are investments.*—Manifestly, a business would not incur expenses unless it felt that it was going to profit eventually by them. A payment of money for salaries or for any other expense is just as much an exchange of value as is the exchange of cash for merchandise or any other asset. However, in return for the former expenditures no tangible asset which can be passed on to some one else is received, except when such expenses take the nature of cost of goods acquired or labor expended upon them.

All expenditures made under the direction of the management are treated in the accounts and considered as being investments which will bring back to the business a return in income in excess of the amount expended. Expenditures for services are investments just the same as the purchase of merchandise for resale at a profit is an investment. It will, perhaps, make the principle of expense accounts clearer if the business man looks upon them as investments which must be deducted from the sales or other income before he knows whether or not they have yielded him a profit.

13. *Special profits.*—There is another type of account which partakes of the same nature as income accounts, but which represents unusual profits that do not occur regularly and which, furthermore, are not a direct part of the concern's business. A profit earned on the sale of a permanent asset, such as a building formerly used for manufacturing purposes, or a profit on the sale of land and the like, come under

this heading. Each such profit will usually be carried in a separate account or else credited directly to net worth.

14. *Special losses.*—Among the expenses there will sometimes be items of special loss, the reverse of the special profit just mentioned. They may arise thru fire, thru unprofitable investments or some similar cause. Such losses may either be separately classified so that each individual transaction will appear in a separate account or they may be charged directly to net worth, depending upon conditions and upon the policies of the management of the business.

15. *Net worth.*—The net worth of a business, the net result of the foregoing economic accounts, usually consists of two subdivisions. At the time a business is started the investment of the proprietor, which is termed capital, is credited to the proprietor's capital account. Any addition in the form of net profits is carried in a separate economic account usually until the end of each twelve months of operation. At the expiration of a year the total net profits earned are lumped into one sum and, in the case of sole proprietorships and partnerships, transferred to the capital account or accounts. In the case of a corporation net profit is separately handled as is explained in chapter XIII. In actual practice, as before stated, there is no account called net worth. The term net worth refers to the status of proprietorship as of the date of reference.

16. *The profit and loss account.*—An account which

appears on the books of every business at least once a year is the profit and loss account. As its name indicates, it is an account in which is collected the total profits for the year or against which there is charged the total losses for the same period. The profit and loss account does not ordinarily appear on the books of a business, except at the time when the net results of the business for the year are to be ascertained. It is, in a sense, a clearing or a summarizing account to which all the income account balances and all expense account balances are transferred.

Since it consists of the balances of the economic accounts it is itself an economic account. The result of its use is to bring together in one account the items of income and expense, which appear in several places. Therefore, the balance in the profit and loss account constitutes the total net change in net worth for the period. After this information has been shown the debit or credit balance, showing net profit or loss, is transferred to the proprietor's account.

17. *Personal and impersonal accounts.*—The types of accounts mentioned thus far, namely, asset, liability, income, expense and capital accounts, are the standard groupings of accounts found in any accounting system. To facilitate identification and to make their importance clear, these various types of accounts are given certain specific generic groupings. For instance, they are sometimes spoken of as accounts that are personal or accounts that are impersonal.

This classification arose in the earlier days of book-

keeping efforts when accounts were at first kept only with persons and then later with things, which for the purpose of explaining the procedure were personified. A personal account is any account which expresses a relationship with an individual, whereas an impersonal account is one that relates to an inanimate thing such as cash, notes payable, sales, etc. Mention is made of this division here chiefly that the distinction may be understood when reference to it is made. In so far as the accounting processes are concerned, a personal account is handled in the same way as an impersonal account.

18. *Real and nominal accounts.*—Another distinction that is sometimes drawn in speaking of accounts is their separation into real accounts and nominal accounts. The real accounts are the assets, liabilities and proprietorship or capital accounts or, in other words, accounts that are permanent in that they are always open on the books to show the proprietorship equation.

The nominal accounts are the economic accounts which have just been discussed and which, it will be observed, are of temporary nature. They are called nominal accounts because they are set up solely to analyze the changes which take place in the proprietor's account. They are not, therefore, permanently carried on the books of the business but are closed into profit and loss each year and new accounts set up for the succeeding year's records. Hence, whenever the actual profit for the accounting period is to be de-

termined, the nominal expense accounts are deducted from the nominal income accounts and the net profits for the period carried, thru the medium of the profit and loss account, into the proprietor's account where it becomes a part of a real account. This distinction is purely a matter of convenience in reference and in understanding the nature of accounts. It has no direct connection with accounting processes or with the interpretation of accounting results.

19. *Importance of terminology.*—It has been previously pointed out that the assignment of proper account titles to the various accounts carried is an essential preliminary to the intelligent use of the accounting records. The following is a suggested outline of standard account groupings which can be expanded to fit the needs of almost any business.

(a) INCOME ACCOUNTS
- (1) Sales of product separated by classes or in any way that is desired.
- (2) Sales of by-product.
- (3) Other income, such as discount, etc.

(b) EXPENSE ACCOUNTS
- (1) Labor.
- (2) Materials.
- (3) Supplies.
- (4) Selling expenses, classified in as great detail as is required to give a separate account for each class of transaction.
- (5) General expenses, including administra-

tive expenses, such as officers' salaries not distributable to any special division, etc.

(6) Profit and loss charges for items of unusual expense or loss which are not a part of the operating cost of the business.

(c) ASSETS

(1) Separate accounts for each type of assets so that there may be no miscellaneous groupings of assets owned.

(d) LIABILITIES

(1) A complete separation of liabilities by accounts which will designate each class of liability.

(e) PROPRIETORSHIP

(1) A sufficient sub-division of proprietorship so that if there is more than one proprietor the interest of each will be separately classified.

REVIEW

Explain why accurate grouping of accounts is so essential in accounting.

Why is an account for every type of change in net worth desirable?

State why expense accounts should take the same general groupings as income accounts.

What are economic or nominal accounts? Real accounts?

What groups would you make in planning an outline of accounts for a business?

CHAPTER VII

ACCRUALS AND PREPAYMENTS

1. *Cash basis.*—Some organizations keep their records on what is known as the "cash basis," as opposed to the more modern systems which are operated upon the "accrual basis." Briefly stated, the cash basis of accounting contemplates recording transactions only when they have been completed thru the transfer of tangible property. In other words, payments of salaries would be charged to the expenses of the month in which the payment was made, regardless of the time when the services had been rendered, which might have dated back a month or more prior. In accordance with the same line of reasoning, the purchase of goods on time would not require the setting up of the liability and the corresponding charge to expense when the goods were received. One single charge, directly to expense, would be made when cash was paid out in settlement of the purchase. It is conceivable, then, that the goods themselves may have been entirely consumed several months before the charge ever appears as an expense on the books.

If this idea of a cash basis of accounting were to be applied consistently, it would extend to all accounts and would exclude from the books transactions such as

sales on credit. But every business man knows that accounts receivable are an asset and he would not under any circumstances make a sale on credit without recording the charge against his customer.

When the term "cash basis" is used in practice, then it means a partial rather than a complete cash basis of recording. The method itself has many disadvantages and is illogical, often producing inaccurate records which in turn are compiled into statements which then present inaccurate information to the executive.

2. *Dangers of inaccurate records.*—In every transaction mentioned in chapter II there was an exchange of assets. Sometimes these exchanges involved tangible property and sometimes intangible property, i. e., the promise to pay or receive tangible assets at some future date, but always resulted in increases or decreases in assets, liability or net worth. The point to be emphasized here is that each exchange involved two effects and that these two effects arose at the time of the exchange and not at some subsequent date.

Accounting records are valuable for constructive use only as they are complete and accurate. Records which do not reflect the true play of the economic forces that have operated during a given period of time are incomplete and will lead to false conclusions when comparisons are made from month to month or year to year. All exchanges, whether for cash or not, whether involving tangible or intangible assets, should be recorded.

Business success is indicated by progress, and progress is ascertained chiefly from the accounts. If these accounts do not contain information which is reliable, an accurate gauge cannot be made of progress. Furthermore, any decisions based upon these inaccurate records will inevitably be wrong ones, or at least will not be as sound as they should be.

When an executive examines the business done by his organization in any given period of time, such as a month or a year, he wants to know the true income and expenses for that particular period and his financial condition at the end of that period. The mere payment of cash does not necessarily constitute an expense, since an expense arises only when something is consumed and the time of payment may not coincide with the time of consumption. It can be laid down as a fundamental rule, therefore, that the accounting records must be so designed as to express for each month the actual results of business done in that month.

3. *Allocation of income and expenses.*—The normal accounting routine is automatic in its action and, machine-like, it absorbs every transaction that comes to it as a matter of regular routine. Inevitably many transactions will be recorded which are not a direct part of the business of the month under consideration. The condition of affairs, as shown by the accounts in the trial balance, does not draw any distinction between the amounts attributable to the cur-

rent month and the amounts which properly belong in subsequent months.

The only way to make this separation is to allocate to each accounting period the actual income and expenses of that period, irrespective of the time when cash is received or payment made. Consequently, an accounting system which by the records kept, does not provide for showing all income that arose during that period, whether received or not, and for reporting all expenses which were incurred, whether paid or not, does not reveal the whole truth and thus is inadequate to supply the executive with the information he needs. There is little use in presenting a comparative record of income and expense unless the expense is that which was incurred in earning that particular income.

4. *Accrual basis.*—In organizations, therefore, where the accounting system is more highly developed, books are kept on what is known as the "accrual basis." Under this plan of operation, the records are made to show the results of all exchanges or transactions during the period. It not only recognizes changes in the business wrought by purchase or sale of goods on credit, but also the incurring of expenses that clearly belong to the particular period concerned, whether actually paid for or not, and the items of income earned during the same period, whether received or not. It is in these latter respects principally that the accrual basis differs from the cash basis.

5. *Where the cash basis fits.*—From the above, it is apparent that no private enterprise of any size can operate intelligible records if only cash receipts and cash disbursements are carried in the books. Private business exists to earn profits on its transactions and a return on the capital invested. To secure these profits the head of the concern must make sure that revenue or income bears the proper proportion at all times to capital and that the expenses charged against revenues are not excessive. Unless there is a direct connection between the income recorded and the expenses assignable to this income, the accounting records will not be of great value in a study of such items. The problem before the executive is one of income earned and expenses incurred in the earning, rather than that of cash received and cash disbursed.

In the case of public corporations, such as municipalities, however, the situation is different. Municipalities are not conducted for profit and invested capital upon which income must be earned does not exist. Revenue is automatically regulated, as it were, by the cash disbursements that are necessary; the primary requirements in such accounting, therefore, is to show the money received and the money disbursed. The cash basis has been commonly employed by municipalities because it seemed to accomplish this more easily and simply than any other method. Also charitable organizations not conducted for profit frequently operate their accounting records on a cash basis since that method gives them all the information they re-

quire inasmuch as their expenditures are limited by their cash receipts.

6. *Normal accounting routine.*—Normal accounting routine is machine-like in its nature and when planned with this thought in mind the accounting system can be made to record every transaction on the accrual basis, instead of on the cash basis. It so happens, however, that, notwithstanding the development of accounting processes, the mechanical recording of entries will not give proper expression to some of the phases and relations which result from the daily operation of business.

This is true because there is no practical provision even in the accrual accounting system itself for accurately measuring the status of the economic accounts. Many items which by their nature are classified under economic accounts are, at a particular point of time, neither income nor expense, but rather liabilities or assets, depending upon whether they are a credit or a debit. This may seem like a contradictory statement, but it is one supported by an analysis of the actual facts. An item does not become income until an asset has been received in exchange for something given up. An expense does not become an expense until it has been consumed in the course of effort to earn income.

In making records of transactions which have occurred, there is no means at the time for distinguishing between income earned and income received before it is earned, or between expense items and expenses con-

sumed. Consequently, in order to carry out the accounts on the accrual basis it becomes essential to examine and value all economic accounts whenever profits and financial condition are to be determined.

7. *An illustration of accruals.*—Perhaps an illustration at this point will make this principle of accounting clearer. Assume that Richard Brown made sales of $5,000 during the month of May and that to produce these sales he employed a salesman, paying him $200 a month. The salesman's salary obviously is one of the items to be deducted from sales before the profit for May can be ascertained. Assume, however, that this salesman was absent on May 31 and did not receive his salary until June 1. The accounting records, to preserve the chronological continuity of the entries, would record this payment in June.

If the June salary were paid on June 30, then the total cash paid for salaries in June would be $400. This method of handling salaries would result in two inaccuracies: (a) The profit of May would be overstated by $200, since the salary of the salesman who brought in all or part of the $5,000 sales in May would not be charged against those sales, and (b) the profit for June would be understated by $200, since there would be a total deduction of $400 for salesman's salary in June, while the value of the time spent in making sales for June would be worth only $200, and only that amount should be charged against June sales.

8. *Prepayment of expenses.*—On the other hand,

under the cash basis all payments of an expense nature are treated as immediate expenses. In reality an expense can only arise when something is consumed directly or indirectly in an effort to earn profits. It is the time of consumption that determines the allocation of the charge and the act of consumption that creates the expense. The time of payment is immaterial, except as it affects the financial condition.

As a case in point, assume that Richard Brown purchased in May $500 worth of circularizing literature to be used as a part of a sales campaign to be instituted in June. Under the cash basis of keeping records, this $500 would be treated as an expense of the month of May and yet this literature had no part in producing the sales of May. It would be consumed in June and would properly constitute a part of the cost of making sales in June and in subsequent months.

9. *Adjustments in accounts.*—It is with this separation and allocation of income and expenses to the periods to which they belong that the more advanced accounting procedure deals. This phase of accounting is perhaps rather difficult to master and yet it is of great importance, if the records are to be reliable and if the message which they carry is to be true. Consequently, after the transactions of each month have all been recorded and the trial balance drawn off, the income, expense and liability accounts will have to be examined and valued. Usually numerous adjustments will be necessary in the economic accounts listed

in the trial balance in order that they may contain only the income and expenses which belong in the particular month under examination.

The adjustments to be made may be classified as follows:

(a) Expenses incurred but not recorded
(b) Expense items recorded but consumption deferred until a subsequent month
(c) Income received and recorded but not earned in the month in which record is made
(d) Income earned but not recorded

10. *Accrued expenses.*—Despite every effort to put thru all invoices promptly and to make salary payments within the month in which services are rendered, there will always be a number of such charges outstanding at the end of every month. It behooves the accountant, therefore, to make a careful examination of the expense accounts and to pick up any expenses which may have been incurred but which have not previously appeared on the records. Bills that come in after the end of the month should be recorded by adjustment entries, which will be explained in the next chapter. If bills are not received but a definite liability is known to exist, entries should be made just the same as if the bills had been rendered.

Salaries due but not paid must not be overlooked. For example, employes may be paid every Saturday, but the end of the month will not always fall on Saturday. In such instances there will be a few days'

pay due to the employes at the end of the month. To illustrate this point, assume that the month of June closes on Wednesday and that the weekly payroll amounts to $1,000. Clearly the employes have rendered three days' service in the month of June for which they will not be paid until the following Saturday, which is the third day of July. Unless adjustment is made, the salary expenses of June would be understated by the cost of the services received on the last three days of the month. On the other hand, the salary charge for July would be overstated by the amount paid to employes in July for services rendered in June. These errors are adjusted by a journal entry which charges to the various expense accounts the $500 of salary which is attributable to the month of June and credits the same amount to a new account which must be set up, called "salaries accrued."

11. *Material received but not billed.*—It will also frequently happen that certain merchandise has been received and put in stock but that the invoices for these purchases have not yet been recorded at the end of that month. The usual two effects of any such transaction exist here, namely, the receipt of an asset and the creation of a liability. If, when inventory of stock on hand is taken, this merchandise is included in the inventory as would normally be the case, then it would naturally be deducted from the expense charges on the books when the cost of goods sold was

computed. This plan, however, would incorrectly reduce the record of cost of goods sold.

For example, suppose that the records showed purchases of $10,000 and inventories of $2,000 and $3,000 at the beginning and end of the period respectively. From the records the cost of goods sold is $9,000—i. e., $10,000 plus $2,000, the opening inventory, and minus $3,000, the closing inventory. The true result would be quite different tho if $1,000 of goods received toward the end of the month had been put in stock and included as a part of the $3,000 inventory, but no bill entered and no record made in the purchases account. In other words, a deduction would be made from the recorded purchases for an item that had never been included in the purchases account.

There are numerous other charges which normally affect the business of each month, but which are not always entered as a part of the regular accounting procedure of that month. Bills covering light, rent, etc., will frequently be received too late to be included in the regular records for the month. These bills should all be recorded by means of the special adjustment entries later explained. The accounts to be charged are naturally the specific expense accounts involved. There is no definite liability account open on the books, however, which can be directly credited and so it becomes necessary to open a new account for these accrued items. Because the opening of a new account for every such item means considerable clerical work,

it is now customary to credit the total of these adjustments in one lump sum at the end of the month to one account which is usually called "accrued liabilities." This account implies by its name the adjustments that have been made at the end of the month in order to get into the records of that month's business all charges that have not been put thru in the regular way. The result of this latter method is exactly the same as the former and reduces routine work.

12. *Other accrued liabilities.*—Thus far we have discussed only those liabilities which are payable at the close of the month, or shortly thereafter. There is, however, another class of accrued liabilities which is frequently overlooked. There are certain types of expenses which can not be escaped, which must be paid and which increase with the lapse of time until the date of payment becomes due. Thus, for example, interest and taxes are definite obligations which legally accrue from day to day, creating an increasing liability which upon maturity amounts to the face value of the liability to be paid at that time.

Assume for the moment a business which has outstanding a mortgage of $100,000 on which 6% interest is being paid. At the due date for payment of interest a total of $6,000 must be paid out. It is not to be thought that this $6,000 liability does not arise until the date on which interest is to be paid. Interest accrues from day to day and, if the business were sold or if the mortgage were transferred, the interest accrued up to the date of sale or date of trans-

fer would be added to the face value of the mortgage.

Furthermore, it is incorrect to assume that the business transacted in the month in which this payment is actually made is to be charged with the total expense for the mortgage interest. In reality the asset subject to this mortgage is being used in the business thruout the year, and any part of the cost of maintaining the asset should be apportioned over the months in which the asset is employed. If the interest were $6,000 the proportion for each month would be one-twelfth, or $500.

13. *Recording accrued interest payable.*—The customary method of recording is to charge interest expense each month with $500, representing the proportion accruing for that month, and to credit accrued interest payable with an equivalent amount. Thruout the year this item would represent a constantly increasing liability. At the expiration of the year there would be a credit balance in accrued interest payable totaling $6,000 against which the cash payment would be charged when made.

Taxes are another expense which accrue from day to day in much the same manner as interest and, whenever they can be estimated with any degree of accuracy, proper provision should be made for them in the records so that they will be distributed over the year, rather than charged in total as the expense of any one month. Furthermore, taxes are a direct liability which does not cease with the liquidation or transfer of the business. In fact, whenever a sale of a business is

made it is effected subject to unpaid taxes and the purchase price is adjusted accordingly. Hence, taxes are also accrued on the books from month to month by a charge to tax expense and a credit to taxes accrued.

When the payments are made on due dates for either interest or taxes, the charge for the payment is not made to any expense account, but to the liability account which has previously been set up, namely, "taxes accrued" or "interest accrued," as the case may be, thus reducing a liability but having no effect upon the economic accounts since the economic effects have already been recorded from month to month.

14. *Inventory expenses.*—Merchandise purchases are usually regarded as an element of cost, that is to say, the account is an expense by nature, being an offset or a deduction from income. It is true that the items recorded therein are valuable and are in themselves assets, but they are purchased for resale at a profit and not for permanent holding. The actual amount of goods on hand is constantly changing and the balance of charges to this account at any time measures both the amount of goods on hand and the amount consumed. It would, therefore, be wrong to treat the book account, "merchandise purchases," as an asset at any particular time. By treating it as an expense, however, and then substracting from it the amount of inventory on hand at the end of the period, the account itself ultimately contains only the net proportion consumed and, as already explained, anything that is consumed is an expense.

Manifestly, the value of the inventory is an asset as of the date of the inventory. Accounting records can take cognizance of conditions only as of a specific moment of time and when the records for the end of each month are prepared they are supposed to reveal the actual conditions of the business at the close of the last day of the month. Thus, as an illustration, assume that a business lost thru a fire on June 5 a building worth $50,000. If a statement of the business as of May 31 was being prepared from the books it would have to show among the assets on that date a building which was worth $50,000. The fact that this building was later destroyed by fire and its loss only partially compensated for by insurance would not be taken into the accounts of the month of May. It, of course, should be indicated somewhere, preferably by a foot-note on any statement of condition prepared after the fire.

On the same principle, the cost value of merchandise on hand at the time the inventory is taken as an asset and must be classed as such in any statement that is prepared for the business as of that date. It will be noted that in classifying the inventory as an asset, the equality of debits and credits is not in any way disturbed, since in adjusting the purchase account we had to make a credit entry of the inventory on hand, which is offset by a debit entry to inventory account. As soon as business for the new month begins, this asset of the close of the previous month becomes an expense element of the new month.

15. *Deferred assets.*—Inventory of merchandise held for resale is not questioned by any business man, but the inventory of other expenses is not always so clearly understood. Referring to Richard Brown's business, suppose that in May he paid $300 office rent for the months of May and June. The rule already has been laid down that there should be picked up as expenses of the month of May only those expenses which are attributable to that month. Consequently, rent expense for the month of May is only $150 out of the $300.

The question naturally arises as to how to classify the balance of $150 which remains in the rent account. This amount is an asset of the business as of May 31 and belongs in that group of assets known as prepaid expenses or deferred charges. The latter title is more expressive of the nature of such items, since they actually are charges which are deferred to a subsequent accounting period in which they will be consumed. In other words, this amount is an asset as of May 31, since on that date the business is entitled to the right to demand rent service valued at $150 for the month of June and, as we have seen, the right to services is just as valuable an asset as is the right to property.

16. *Prepaid advertising.*—Another account which frequently must be allocated in the same manner is advertising. Many times advertising space will be paid for in one month, altho the publication will not appear until a succeeding month. It would be inac-

curate to charge the amount paid for advertising in January as an expense of January, unless the advertisements were to appear in that month; if they are to be issued in subsequent months then the business has an asset in the form of a right to advertising service which at the end of the month can be carried as an asset at its full value.

As succeeding months go by and a proportion of this advertising service is used up the proportion so expired should be charged as an expense of the month in which used, and the value of the balance which remains unconsumed or unexpired should still be carried as an asset.

17. *Other prepaid items.*—Other accounts which do not appear in Brown's ledger, but which are customarily in part prepayments are: (a) fire insurance premiums, (b) supplies of any kind (stationery and printing, etc.) and (c) advertising matter.

The question may arise as to the accuracy of inventorying items like supplies and stationery, which have practically no salable value and which can be used only by the particular concern to which they belong. As far as accounting goes, until a concern becomes bankrupt or decides to liquidate its business, all records are based upon an assumption of the continued existence of the concern in business. If it is to continue in business, it will have a need in subsequent months for supplies and stationery of this kind. If there were no supply on hand, additional purchases would have to be made and further expenses incurred.

The fact that these expenditures are saved for succeeding months means that the business has an asset of the value of such saving. This fact justifies the inventorying of supplies and stationery just as the salable merchandise is inventoried.

18. *Income received but not due, or earned but not received.*—Up to this point the emphasis has been laid upon the expense items which should appear in the records of a month or other period, but which have been omitted for one reason or another. There is another class of adjustments, however, which are just as important in their effect upon the accounting relations as the items discussed, that is, income received within the month but not earned in that month. This income may have been earned either in preceding months or it may apply to subsequent months. Thus, for example, the recipient of the interest on the $100,000 mortgage mentioned above would receive in one month $6,000. That amount would not all be income of that month, but rather should be apportioned over the twelve months of the year.

It would be just as incorrect to treat this interest as income for the month in which received, as it would for the paying company to treat it as an expense of the month in which it was paid. No further elaboration on this point seems necessary, since it is based upon the same principle as was mentioned in respect to interest payable. Each month the amount of interest that is earned in that month should be accrued and the total of all accruals carried in an asset account, en-

titled "accrued interest receivable." The credit for each month's accrual would be made to the income account "interest earned," since it represented income of that month. When the cash was received, it would be credited to the asset account and not to any income account.

It will be noted that accrued items of this nature, whether they be income or expenses, arise only when there is a certainty of their being paid or when their non-payment will result in a right to take legal action. A claim for interest accrued against the giver of the $100,000 mortgage would be a just claim at any time should the mortgagor refuse to pay or become insolvent. The claim which the mortgagee would present to the insolvent debtor would be the face value of the mortgage plus the interest accrued to date, even tho the interest payment date had not arrived.

19. *Elements which affect financial relations.*—Should the question arise as to the necessity of recording those items which do not affect the economic condition of the business for the period, such as the receipt of equipment which has not been billed at the close of the month, for instance, the reader is reminded that such transactions, even tho they do not result in either a profit or a loss, do reflect a changed financial condition and the creation of a new liability. From the accounting standpoint, the proper expression of liabilities is just as important as an accurate record of profit. Bankers, for example, lay more stress upon the relation of assets and liabilities than they do

upon earning power, tho they realize that the permanence of a satisfactory relation between assets and liabilities is based upon an earning power adequate to maintain or improve this relation.

That is to say, the income accounts are, in a sense, feeders of the asset accounts, while the expense accounts are feeders of the liability accounts. If the income accounts are growing out of proportion to expenses, there is bound to be an improved financial condition, since the asset accounts will grow faster than the liability accounts. This produces a gain in net worth and unless the increase in net worth is drawn out by the owners of the business the financial condition of the business will improve as profits increase.

REVIEW

Distinguish between the cash and accrual basis of accounting.

Why must the expenses recorded for any period relate to the income for that period?

What adjustments are sometimes necessary to bring about the proper relation of recorded income and expense?

Describe how interest and taxes should be recorded.

Explain why prepaid expenses can be treated as assets.

CHAPTER VIII

PRELIMINARIES TO THE STATEMENTS

1. *Need for statements.*—With an understanding of the principles underlying the recording of accounting facts we are ready to consider the steps leading up to the goal of all accounting work, the statements. Every executive who uses financial statements appreciates their value and, even tho he may not be expert in accounting, recognizes that they contain information vital to successful business management. The benefit which he receives from these statements, however, depends upon the extent to which he uses them; this in turn is governed by his ability to interpret them. As his interpretive ability grows, the use he finds for statements likewise increases as also does the reliance he places upon them. In fact, as has been noted, without these summaries of progress and conditions which come to him regularly, the average executive would find it impossible to keep in touch with the many details of his business.

2. *Sources of statement data.*—The information in the statement is, of course, made up of the data contained in all the accounts carried in the ledger. We have seen that there are two classes of accounts, namely, the economic accounts and the real accounts.

The economic accounts, dealing as they do with economic progress or profits and losses, are the basis of the income statements which show progress and changes over the accounting period. The other class of accounts, the real accounts, measure condition at the end of the accounting period, rather than progress, during the period; combined in statement form they show the condition which has been produced by the changes reported thru the economic accounts.

3. *Closing the books.*—Whenever the term "closing the books" is used in accounting procedure it implies that a definite point of time is selected up to which every transaction is entered on the books before a proof of accuracy is taken and a summary of results as shown by the books is made. In earlier days it was customary to close the books twice each year and to prepare from the records, after the books were closed, financial statements covering each six months period. With the modern developments in accounting procedure it has been possible to prepare financial statements every month, but, in order to avoid increasing the volume of work which bookkeepers have to handle, the books themselves are no longer closed every time that statements are made up. In fact it is the common practice today to close the books but once a year. It will be seen that, as the books are closed, much the same information that is presented in the financial statements is collected in summary form in the books themselves.

In the following discussion of the work preliminary

to the preparation of the statements, we are assuming that the books will be closed before the statements are made up. By following out this assumption, it will be easier to see the principles upon which the preparation of statements is based and it will also be possible to cover the work of closing the books at the same time. Yet in chapter IX we will see how by use of a working sheet, statements can be prepared without the formality of closing. When a bookkeeper closes his books he transfers all the balances in the economic accounts to the proprietor's account. If there has been a profit for the year, the income accounts will exceed the expense accounts; the excess will measure the increase in net worth and will be credited to the proprietor's capital account. Similarly, if the transactions for the year have resulted in a loss, there will be an excess of an opposite nature which will to that extent reduce the proprietor's net worth.

Before the books can be closed or the statements prepared, however, adjustments in the economic accounts of the type mentioned in the preceding chapter are required in order to bring out all information affecting the accounts on the books.

4. *Additional transactions.*—To illustrate the process of closing with respect to a simple set of books, let us add to the transactions already recorded for Richard Brown in chapter IV the following transactions so as to complete the record of a full month's business. It will be noted that these transactions are all of the same nature as the previous ones.

May 18,	sold merchandise to J. Lane on account	$3,000
May 20,	paid for general expense	50
May 21,	purchased merchandise from E. Batten on account	4,000
May 22,	sold merchandise to G. E. Rogers on account	1,570
May 25,	purchased merchandise from J. Walsh on account	2,600
May 27,	sold merchandise to J. Jones	4,200
May 28,	paid rent for May and June	300
May 31,	paid salaries to date	100
May 31,	paid for office expenses	275
May 31,	Brown drew for his own use	150

The journal entries for recording the foregoing transactions are as shown on opposite page.

5. *Completing the ledger accounts.*—The next step is to post these entries to the ledger accounts. In the first draft of Brown's ledger there appeared the account "net worth" to which various items causing changes in net worth were charged and credited. Since this account has no place in modern accounting records, as was previously indicated, but was introduced simply to clarify the presentation of the fundamental accounting principles it will no longer be used in our illustration. In chapter VI the use of the economic accounts for recording changes in net worth was discussed. Therefore, in the following draft of Brown's ledger the entries in the former net worth account have been transferred to the proper economic accounts.

The items from the former net worth account which

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May 19—.	Folio	Dr.		Cr.	
18.					
J. Lane.	12	$3,000	00		
To merchandise sales.	8			$3,000	00
For merchandise sold to him on account.					
20.					
General expense.	13	50	00		
To cash.	2			50	00
For general expenses paid in cash.					
21.					
Merchandise purchases.	3	4,000	00		
To E. Batten.	14			4,000	00
For merchandise purchased on account.					
22.					
G. E. Rogers.	15	1,570	00		
To merchandise sales.	8			1,570	00
For merchandise sold to him on account.					
25.					
Merchandise purchases.	3	2,600	00		
To J. Walsh.	16			2,600	00
For merchandise purchased from him on account.					
27.					
J. Jones.	7	4,200	00		
To merchandise sales.	8			4,200	00
For goods sold to him on account.					
28.					
Rent.	17	300	00		
To cash.	2			300	00
For rent for May and June.					
Salaries.	10	100	00		
To cash.	2			100	00
Salaries paid to date.					
31.					
Office expense.	18	275	00		
To cash.	2			275	00
For sundry expenses paid today.					
31.					
R. Brown drawing account.	19	150	00		
To cash.	2			150	00
For cash drawn for personal use.					

have been so transferred are the debit of $80 for salary on May 12, the debit of $70 for discount lost

LEDGER OF RICHARD BROWN

RICHARD BROWN, CAPITAL 1

						19—					
						May	1	Cash	J1	$15,000	00
							4	Cash	J1	2,000	00
										17,000	*00*

CASH 2

19—						19—					
May	1	R. Brown	J1	$15,000	00	May	2	Mdse. purch.	J1	$7,000	00
							4	Furniture, etc.	J1	400	00
	4	R. Brown	J1	2,000	00		12	J. Smith	J1	3,920	00
	15	J. Jones	J2	3,430	00		12	Salary	J2	80	00
				20,430	*00*		20	General exp's	J3	50	00
							28	Rent	J3	300	00
							31	Salary	J3	100	00
							31	Office expense	J3	275	00
							31	R. Brown Draw acc't.	J3	150	00
										12,275	*00*

MERCHANDISE PURCHASES 3

19—											
May	2	Cash	J1	$7,000	00						
	2	J. Smith	J1	4,000	00						
	21	E. Batten	J3	4,000	00						
	25	J. Walsh	J3	2,600	00						
				17,600	*00*						

J. SMITH 4

19—						19—					
May	12	Cash & Disc.	J1	$4,000	00	May	2	Mdse. purch.	J1	$4,000	00

FURNITURE AND STORE EQUIPMENT 5

19—											
May	4	Sundries	J1	$600	00						

MODEL EQUIPMENT COMPANY 6

						19— May	4	Furniture, etc.	J1	$200	00

J. JONES 7

19— May	5	Mdse. sales	J1	$3,500	00	19— May	15	Cash disct.	J2	$3,500	00
	27	Mdse. sales	J3	4,200	00						
				7,700	*00*						

MERCHANDISE SALES 8

						19— May	5	J. Jones	J1	$3,500	00
							18	J. Lane	J3	3,000	00
							22	G. E. Rogers	J3	1,570	00
							27	J. Jones	J3	4,200	00
										12,270	*00*

DISCOUNT GAINED 9

						19— May	12	J. Smith	J2	$80	00

SALARIES 10

19— May	12	Cash	J2	$80	00						
	31	Cash	J3	100	00						
				180	*00*						

DISCOUNT LOST 11

19— May	15	J. Jones	J2	$70	00						

J. LANE 12

19— May	18	Mdse. sales	J3	$3,000	00						

GENERAL EXPENSE 13

19— May	20	Cash	J3	$50	00						

E. BATTEN 14

						19— May	21	Mdse. purch.	J3	$4,000	00

G. E ROGERS 15

19— May	22	Mdse. sales	J3	$1,570	00						

J. WALSH 16

						19— May	25	Mdse. purch.	J3	$2,600	00

RENT 17

19— May	28	Cash	J3	$300	00						

OFFICE EXPENSE 18

19— May	31	Cash	J3	$275	00						

RICHARD BROWN, DRAWING ACCOUNT 19

19— May	31	Cash	J3	$150	00						

on May 15 and the credit for $80 discount gained on May 12. It is now assumed that these accounts were properly journalized in the original entries on pages 1 and 2 of Brown's journal and correspondingly,

posted to economic accounts in the ledger. These accounts on the preceding pages appear as if the charges and credits had been made properly in the beginning.

The status of Brown's ledger after these adjustments have been made and after the entries on page 131 have been posted is shown on pages 132–134.

6. *The new trial balance.*—If every transaction for a certain period has been fully and correctly posted, there must be an exact equilibrium between the net debits and credits in the ledger. This is proved by a trial balance prepared as explained in chapter V. The trial balance of Brown's ledger after the transactions for the month of May have been entered and posted is as shown on the next page.

The account of J. Smith was not entered in the trial balance, since there was no balance in this account and the omission will not affect the trial balance in any way. The accounts in this particular trial balance have been listed in the order in which the transactions occurred since this is the order followed in the ledger. As a result, the arrangement of the trial balance is not orderly and its usefulness for reference purposes is somewhat lessened.

In practice, an attempt is made to pre-determine the accounts that will be required and then open them in the ledger in a definite order, grouping like accounts together. For example, assets are usually followed by liabilities then by capital; next come the

RICHARD BROWN

TRIAL BALANCE MAY 31, 19—.

Folio	*Name of Account*	*Debits*		*Credits*	
1	Richard Brown, capital			$17,000	00
2	Cash	$8,155	00		
3	Merchandise purchases	17,600	00		
5	Furniture and store equipment	600	00		
6	Model Equipment Company			200	00
7	J. Jones	4,200	00		
8	Merchandise sales			12,270	00
9	Discount gained			80	00
10	Salary	180	00		
11	Discount lost	70	00		
12	J. Lane	3,000	00		
13	General expense	50	00		
14	E. Batten			4,000	00
15	G. E. Rogers	1,570	00		
16	J. Walsh			2,600	00
17	Rent	300	00		
18	Office expense	275	00		
19	Richard Brown, drawing account	150	00		
		$36,150	00	$36,150	00

income accounts, and then the expense accounts. This arrangement, as will be seen later, greatly facilitates the preparation of the financial statements.

7. *Adjustments in Brown's accounts.*—The following are assumed to be such adjustments as are necessary in the accounts of Richard Brown in order that the accounts in his trial balance may be adjusted to show the true income and expense for the month of May. While the scope of these illustrations is not so broad as the examples cited in the preceding chapter they will, perhaps, by their simplicity make the appli-

cation of these principles clearer. In any event, the procedure to be followed is the same whether the transactions are many and their nature intricate or whether they are few and simple as the ones illustrated.

Assume that:

(a) It is discovered that $700 worth of merchandise has been received for which an invoice has not gone thru the records

(b) The salary of one salesman amounting to $100 was not paid for the month of May due to his being absent on the last day of the month

(c) The electric light bill of $5 was not received in time to be put in the books before the end of the month. This is a general expense item and should be so charged

(d) The rent of $300 represents the rental for the months of May and June

(e) Merchandise inventory on hand at the end of the month is $8,000.

8. *Journalizing adjustments.*—Since all entries must be first passed thru the book of original entry, the adjustments would appear in the journal as shown on the next page.

Most of these adjustments could not have been discovered until after the trial balance had been drawn off, so they must be treated as adjustments of the results shown there and the accounts in the trial balance adjusted accordingly.

Adjustments are of two classes: (a) those which are made as a temporary expedient only and which will not be retained in permanent record form, and (b) those which are made monthly and retained as a permanent part of the accounting records.

JOURNAL

May 19—.	Folio	Dr.		Cr.	
31.					
Merchandise purchases.		$700	00		
To accrued liabilities.				$700	00
For merchandise received in May but not recorded					
31.					
Salary.		100	00		
To salary accrued.				100	00
For May salary of salesmen.					
31.					
General expense.		5	00		
To accrued liabilities.				5	00
Electric light bill for May.					
31.					
Prepaid rent.		$150	00		
To rent.				$150	00
To allocate rent of $300 paid in May for May and June.					
31.					
Merchandise inventory.		8,000	00		
To merchandise purchases.				8,000	00
To record inventory of May 31.					

9. *Temporary adjustments.*—The first class is illustrated in the first three entries listed above. These represent transactions which pertained to the business of the month of May but which would not have been recorded in the regular process of bookkeeping until June. Adjustment entries of the type illustrated here pick up these transactions in the summary of business for the month of May. However, in the regular course of events the customary entries would eventually be made for each transaction as a part of

the regular bookkeeping procedure in some subsequent month and unless some provision is made duplicate entries would result for each such transaction, one in May and one a subsequent month, probably June.

The proper method, then, is to make adjustments at the end of each month in the manner just illustrated so that they will get on the records for the month in which they belong. At the beginning of the following month these entries should be reversed, that is to say, the accounts that were credited should be charged with the same amounts and those that were charged should be credited. Then, when the time comes to make entries for these transactions in the regular way, the effect of the second entry will have been exactly offset on the books by the reversal of the first entry.

The journal entries and skeleton ledger accounts for one accrual together with its reversal are given below, in order that there may be no doubt as to how this reversal of an accrual works out. The illustration is the adjustment in the books of Richard Brown for $700 of merchandise received in May, but not recorded in that month because the invoice for the merchandise had not gone thru the accounting department.

JOURNAL ENTRIES

	Dr.	Cr.
May 31,		
Merchandise purchases	$700.00	
To accrued liabilities		$700.00
June 1,		
Accrued liabilities	700.00	
To merchandise purchases		700.00
Reversal of accrual		
June 5,		
Merchandise purchases	700.00	
To vendor		700.00

SKELETON LEDGER ACCOUNTS

Merchandise Purchases

May	31	$700.00	June	1	$700.00
June	5	700.00			

Accrued Liabilities

June	1	$700.00	May	31	$700.00

These postings show that the expense account, "merchandise purchases," bore the correct charge of $700 in May and that, while another charge for the same transaction was made on June 5, it did not increase June expense, since it was off set by a credit in the same month. The credit for the June 5th entry would go directly to the account of the vendor, which for brevity is omitted from the skeleton ledger accounts shown above.

10. *Prepaid expense recorded.*—The last two adjusting entries on page 138 embody an entirely different situation. Here a $300 payment for rent had been classified in the journal as an expense. Upon investigation it was found that $150 of this amount belonged among the expenses for the month of June and con-

sequently was an asset of the business on May 31. The most logical way to treat this case is to transfer the $150 asset portion to the account "prepaid rent," which indicates by its title the nature of its contents. The balance in the rent expense account is a part of the cost of doing business in May. At the end of June all of the $150 prepaid rent will have been consumed and at that time should be transferred back to the rent expense account by an entry charging rent expense and crediting prepaid rent.

If some expense such as advertising has been prepaid several months in advance it is probably easier and simpler to classify the original charge as an asset of a deferred nature and write off from it to expense the amount consumed each month. In this way a $1,200 contract covering a year's advertising would be charged to the asset "prepaid advertising." Each month, as one twelfth of this amount was consumed, the following entry would be made:

Advertising expense	$100	
To prepaid advertising		$100
To transfer to expense the cost of advertising service consumed		

11. *Clear account titles helpful.*—The important point to bear in mind in connection with such entries is that certain items which by their titles seem to be expenses are by their nature assets. To differentiate them on the records, it is advisable to assign such titles as will make their nature understood and

avoid confusion. If the asset phase of prepaid expenses is specifically indicated by the use of different account titles, then the nature of those accounts can not be misinterpreted. Prepaid rent, for example, is commonly known to be an asset; with the passing of time this asset grows less in value as part of it is consumed. If the amount consumed each month is definitely transferred to another account, such as rent expense, then the meaning and the nature of each account can not be misunderstood.

12. *The adjusted trial balance.*—The next step is that of incorporating these adjustments in the trial balance to the end that the accounts listed there may be correct. The following form contains the original trial balance, postings of the adjustments and the final results. Since the adjustments contain an equality of debits and credits their introduction into the first trial balance does not change its original status of equality. Amounts of adjustments are added to or subtracted from original balances and the new balance carried forward to the last two columns.

The reader's attention is specifically called to the changes which have been made in the trial balance by posting these adjustments. It will be noted that the liabilities are now in total considerably in excess of those first stated, that certain assets have been set up which did not formerly exist and that the profits have been increased by the amount of the expenses that have been temporarily classified as assets and

RICHARD BROWN

ADJUSTED TRIAL BALANCE MAY 31, 19—.

Ledger Folio	Accounts	First Trial Balance		Adjustments		Final Trial Balance	
		Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
1	Richard Brown, capital		$17,000 00				$17,000 00
2	Cash	$8,155 00				$8,155 00	
3	Merchandise purchases	17,600 00		$700 00	$8,000 00	10,300 00	
5	Furniture and store equipment	600 00				600 00	
6	Model Equipment Company		200 00				200 00
7	J. Jones	4,200 00				4,200 00	
8	Merchandise sales		12,270 00				12,270 00
9	Discount gained		80 00				80 00
10	Salaries	180 00		100 00		280 00	
11	Discount lost	70 00				70 00	
12	J. Lane	3,000 00				3,000 00	
13	General expense	50 00		5 00		55 00	
14	E. Batten		4,000 00				4,000 00
15	G. E. Rogers	1,570 00				1,570 00	
16	J. Walsh		2,600 00				2,600 00
17	Rent	300 00			150 00	150 00	
18	Office expense	275 00				275 00	
19	R. Brown, drawing account	150 00				150 00	
20	Merchandise inventory			8,000 00		8,000 00	
21	Accrued liabilities				705 00		705 00
22	Salary accrued				100 00		100 00
23	Prepaid rent			150 00		150 00	
	Totals	$36,150 00	$36,150 00	$8,955 00	$8,955 00	$36,955 00	$36,955 00

decreased by the added liabilities which have resulted from the newly discovered expenses. From this adjusted trial balance the closing entries for the year can be worked out.

13. *Periodic closings.*—It will be seen that there are really two types of closings; one is the yearly closing, in which every economic account is closed out, balanced and transferred to the proprietor's account; the other is the monthly closing.

The monthly closing is actually not a closing at all; but rather a routine procedure necessary to adjust the records for the preparation of financial statements. It is called a closing of books, however, since all records have to be completed and all transactions up to a certain date entered before these statements can be prepared.

Once a year, however, all economic accounts are completely closed out, their net results permanently transferred to the proprietor's account on the books and new accounts started in which are recorded the results of the transactions for the succeeding year. In this connection, it is well to note that the closing out of an economic account means the transfer of its balance to the proprietor's account and the ruling off of the account completely so that from the beginning of the next year there will be included in the new account only that year's transactions.

Instead of making these transfers directly to the net worth or proprietor's account, it is customary, as

already explained, to transfer them to an intervening account, which will be in the nature of an economic summary or a clearing account. The balance in this account, after all income and expenses have been transferred to it, will measure the result of operations for the year. It is the balance of this account which is transferred to the net worth or capital account. This economic summary account is commonly called the profit and loss account. It is debited with all the accounts which decrease the net worth and credited with all the accounts which increase net worth. If Richard Brown's books were to be closed out after the one month's transactions, the necessary journal entries would be as follows:

Profit and loss	$11,130.00	
To Merchandise purchases		$10,300.00
Salaries		280.00
Discount lost		70.00
General expense		55.00
Rent		150.00
Office expense		275.00
To close		
Merchandise sales	12,270.00	
Discount gained	80.00	
To profit and loss		12,350.00
To close		
Profit and loss	1,220.00	
To R. Brown's drawing account		1,220.00
To transfer profit for period		
R. Brown's drawing account	1,070.00	
To R. Brown capital		1,070.00
To transfer net balance		

14. *Comments on closing entries.*—It will be noted that the expense accounts and the income accounts are transferred to profit and loss separately. There is small gain by so doing; the advantage lies chiefly in the fact that the total expenses and the total income may be seen at a glance.

During the month, the proprietor withdrew for his own use $150. This amount may be viewed in one of two aspects; either it is a withdrawal of a portion of his original capital or it is a withdrawal of anticipated profits not yet ascertained at the time of withdrawal.

In either event, it is an adjustment of the proprietorship account that does not in any way affect the profit of the business for the period. The account will therefore be transferred to net worth by charging it directly against the proprietor's account either before or after the profit and loss net balance has been transferred. Here profits have been first transferred to the credit of Brown's drawing account and then the balance in that account carried as a credit to capital.

After these entries have been made only the asset and liability accounts are left open in the ledger, including the new accounts for merchandise inventory, prepaid rent, salary accrued and accrued liabilities which would have been opened in the natural course of events at the time the adjustments were posted.

By means of the foregoing procedure Brown's profit for the month has been worked out. However, be-

yond showing total profits, the information is of little help to him. In the next two chapters we shall see how the information accumulated can be made to serve the executive more efficiently.

REVIEW

From what sources is the information for financial statements drawn?

Describe the effect of adjustments upon the trial balance results.

What types of adjustments are found and how are they recorded?

Outline the advantage of clear, intelligible account titles.

Explain how books are closed.

CHAPTER IX

FINANCIAL STATEMENTS

1. *Business information summarized.*—It is sometimes thought that with the closing of the books the functions of accounting have been fulfilled for that period of time. As a matter of fact only the first phase of accounting work has been completed. There remains yet the second and more important part, namely, the preparation of statements. Tho the pertinent facts are all present in the books, yet few business men have the ability, or given the ability, have the time to dig thru the records with sufficient care to visualize the essential data in a composite way, to classify them in a manner that will bring out the important relationships and to analyze the individual results so that definite conclusions may be drawn from them.

The business man of today expects his information in a predigested form. At least it must be properly arranged and classified so that he may quickly see the strong and the weak points and be able to put his fingers definitely upon causes and results. Only when possessed of a clear and accurate conception of the status of the business and the reasons therefor

can the executive give to his business the full benefit of his experience and judgment. The presentation of the data contained in the accounting records in a clear and concise manner is the final and ultimate goal of accounting and it is the feature which makes the accounting records really valuable to the executive.

2. *Financial statements.*—Financial statements are standardized forms for presenting financial data. The principles governing their construction are fundamental and unchanging. These principles are not difficult to comprehend and, once they are mastered, the information contained in the statements is more easily understood and conclusions drawn from them are broader and sounder.

While the form of statements is well standardized and covered by unchanging principles, the application of these principles must be adapted to the conditions existing in any particular enterprise. Accounting systems and the form of accounting statements can not be switched bodily from one organization to another without losing a great part of their value. Just as the reasons for the success of one organization are different from those of another, so too are the conditions within the organization and the motives by which they are actuated different. If the accounting statements are not of a type which will point out these qualities and indicate successfully the individual characteristics of each organization or, rather, the results that are produced by these individual character-

istics, then the accounting system fails to achieve its full purpose.

3. *Two types of information needed.*—In the matter of executive control, there are two distinct angles from which the business man views his business. One concerns the progress that has been made in the period of time under review, and the other, the financial condition at the end of the period as compared with that at the beginning.

We saw in our study of an accounting system that there were two types of accounts carried; one dealing with assets, liabilities and proprietorship and the other dealing with the economic factors which caused the profits or the losses. Consequently, two types of statements are necessary. One statement, called the "balance sheet," shows the financial condition at the end of the accounting period, which can be compared with the financial condition at the beginning of the period. The second statement or set of statements, indicates the progress made by the business, showing the net profit or net loss for the period and the sources of income and the causes of expense which have produced this result.

This second statement, called the "income and profit and loss statement," points out the factors of progress and gives many side lights upon the changes in financial conditions. It is hardly necessary to indicate that, despite large profits, an unsatisfactory financial condition may arise and result almost as disastrously as if there had been a low profit or an actual

loss instead. If thru improper manipulation and transfer of assets there are not sufficient realizable assets on hand to meet the current liabilities as they fall due, the fixed assets or permanent assets will have to be sacrificed and this may mean the complete destruction of the organization. In fact it is just as important to conserve profits after they are made and to maintain the right relation between assets and liabilities as it is to earn the profits themselves.

4. *Details of causes and effects required.*—If the executive is to direct business activities successfully for the ensuing year, he must know what caused the changes, if any, during the previous year, why the profits were not greater or why losses, if any, were incurred. He must know exactly in what items changes have occurred and what have been the factors which contributed to these changes. To know, for example, that net profits for the period have decreased $5,000 serves but to increase the confusion and doubt in the mind of the executive unless he can trace from some records the cause of the decrease. If for example he finds that the sales for that period had fallen off $50,000 and that the customary margin of profit on this $50,000 of sales accounted for the $5,000 loss, then he would not make any extensive investigation of expense until he had studied every factor contributing to the variation in the volume of business. In such a case only after the volume of business and the prospects of sales had been completely analyzed would he turn his attention to the ex-

penses of doing business and try to cut costs in order that, as the volume of business fell off, the volume of expense would decrease in the same or greater proportion.

5. *Scope of financial statements.*—Of the two kinds of statements, the balance sheet then might well be likened to a cross section of the business taken as of a particular instant of time. Business is composed of a continuous current or flow of transactions so that by momentarily stopping this flow and analyzing the situation we can see the relation of assets and liabilities to one another and the amount of net worth. The flow that takes place after the date of the balance sheet may, of course, change the condition materially but, as far as the statements go, it is not to be considered until the next balance sheet is prepared. On the other hand, the income and profit and loss statement measures the flow of business classified by the elements which cause it to flow between the date of the preceding balance sheet and the date of the current balance sheet. It is a measure of tendencies, an indicator of results; it points out the factors which have caused the changed condition as shown by the new balance sheet.

Statements are ordinarily prepared monthly, with the income and profit and loss statement showing separately the results for each month and the balance sheet the condition at the end of each month. Also, at the end of the fiscal year, statements are prepared

which summarize the results of the business for the year. Many organizations require, in addition, quarterly and semi-annual statements which are prepared according to the same plan and which cover the same data as in the yearly statements, except that the period of time involved is shorter.

6. *Sources of statement data.*—In the preceding chapter, the closing of the books after all adjustments had been made was illustrated. The information so compiled is the source of data for the financial statements. In the closing entries and in the ledger after the closing entries are completed, the proper grouping is not possible without the transfer of this data to some other form of record. The presentation in the form of statements makes the data intelligible and usable.

Accounting records classify transactions and, having analyzed their effects, group these effects into accounts. Similarly, the financial statements classify the accounts and group them not necessarily according to likeness but rather so that relationships may be brought out. Accounts form the basis of financial statements and the grouping of accounts in the statement, the most important element in their preparation, is of equal importance with the need for accuracy of data. Thus, for example, if some item of expense is classified one year as a selling expense and the following year as an administrative expense, comparisons from year to year will suggest changes

in those elements of cost which as a matter of fact did not actually take place, but were only the result of a change in bookkeeping procedure.

7. *Each account tells its own story.*—Each account in the ledger has a purpose and each tells its own story. Its contribution to the composite figures presented in the statements is the record of the changes which business operations have produced in that one account. Consequently, the balance of each account should be set forth clearly in some statement and its message should be emphasized rather than hidden.

For illustration, assume a marketing enterprise with monthly sales of $50,000, cost of goods sold $20,000, selling expenses $25,000, and administrative expenses $4,000. The profits earned amount to only $1,000, or 2 per cent of sales. In many lines of business this is too narrow a margin of profit, the continuance of which would soon result in dissolution. Assume further that the salesmen's commissions, salaries and expense composed practically all of the $25,000 selling expenses. This immediately shows that the selling expenses are high because of the heavy payments to salesmen. This is an important message which would be lost sight of if the accounts were so grouped that the item of payments did not appear as a separate element of cost.

8. *Forms of statements.*—The forms of statements vary materially, reflecting sometimes the individual peculiarities of the officers in control of the statements and always, if they are correctly prepared, the

individual peculiarities of the business whose story they tell. Underlying all statements, however, there is found a set of rules which are standardized and which cover both the form and the grouping of the accounts. On pages 166 and 170 will be found illustrated both an income statement and a balance sheet. Particular attention should be given to the grouping of items and to the standardized group titles which form a part of every statement.

9. *Development of the modern income statement.* —At the end of every accounting year the bookkeeper prepares an account known as the profit and loss account, as was illustrated in the preceding chapter. This account is a summary of the economic accounts in the ledger and in it particular attention is paid to the grouping of accounts. For the purpose of grouping items and also to permit a comparison of results from month to month and from year to year, the income statement has been evolved out of the data already recorded in the profit and loss account in the ledger. The fact that the income statement is usually prepared monthly directly from the trial balance without the intervention of any closing of the books or the construction of a profit and loss account does not in any way vary the principles upon which the income statement is based.

The profit and loss statement differs from the profit and loss account, first, because of the standardized classifications and groupings mentioned, and secondly, because it is usually prepared in what is

known as the report or narrative form. It will be recalled that an account exhibits upon the right-hand side items of credit and upon the left-hand side items of debit; in other words, profits are credits and losses are debits. The narrative report starts with the gross amount of income obtained from sales of all kinds and then proceeds to analyze the deductions from sales—namely, the cost of goods sold, selling expenses, administrative expense, etc.—and then adjusts the balance by the amount of any other income received, such as discount earned, or of any deductions from income, such as discount lost, interest paid, and the like.

10. *The balance sheet.*—While the profit and loss statement is a statement of changes, the balance sheet, as previously mentioned, is a statement of the results of these changes, and shows the condition at a particular point of time. Its essential characteristics are, first, the relationship of the several classifications of assets, liabilities and net worth and, secondly, the balances in each such account. Enough has already been said to emphasize the necessity of a proper relationship between assets and liabilities as well as an intelligent and standardized grouping of accounts so that from the balance sheet the executive can learn the amount and kinds of maturing obligations and ascertain the assets which will convert themselves into cash in time to meet these obligations.

11. *Essentials of interpretation.*—The interpretation of financial statements is fully covered in the

Modern Business Text on "Financial and Business Statements." Consequently, only enough will be said here to point out the uses which can be made of statements and to bring out also the rules which control their preparation. The interpretation of statements, or rather the interpretation of the data they contain, requires a combination of experience and training in handling financial statements, a broad knowledge of business in general, a specific knowledge of the particular business under consideration and a skill in drawing conclusions from statistical data. It requires an appreciation of the normal relations between accounts and groups of accounts as well as the normal conditions of a business, whereby abnormal relations and abnormal conditions can be picked out and identified. It requires the ability to estimate from the relations between accounts and the groups of accounts the causes of changes and the effects of policies.

To illustrate this point suppose that Richard Brown found his profit for the month of May to be only $100. This would be an unsatisfactory condition and would demand immediate remedy. His first step would be to trace down the cause of his small profit. If it were found that the ratio between administrative or selling expenses and total sales was above the normal ratio for concerns in the same line of business, he would take immediate steps to reduce those expenses. If he found that the prices at which he was selling his goods did not allow him an ade-

quate margin of profit and that expenses could not be materially reduced, he would then be confronted with a problem of marketing.

12. *Business judgment a big factor.*—This leads to our next point, namely, that accounting records disclose causes and effects but do not directly point out the remedial procedures that should be followed. This is a matter of business judgment and experience, the success of which depends upon the ability of the interpreter to draw wise conclusions. Thus the question above might involve the effect of an increased price upon the volume of sales. If changes in sales prices had been made in the past, the effect of these changes on the business could easily be ascertained from the accounting records of that time and, based upon the effects of the previous change, an estimate of the results of another change could be made.

13. *The working sheet.*—Without the right kind of financial statements successful interpretation is impossible and so the preparation of statements becomes an important preliminary to using them. Many accountants before closing their books or preparing the financial statements, prefer to summarize the trial balance, and the adjustments made after the trial balance is drawn off, on a working sheet in which they can allocate all accounts according to their nature and thus group separately the income and expense accounts and the asset, liability and net worth accounts.

In the books of the ordinary concern where the

number of accounts and the number of transactions are not heavy, this procedure is probably unnecessary since the statements can be constructed directly from the trial balance together with a list of adjustments. However, since the work of preparing a working sheet includes all the analysis which precedes the preparation of the financial statements it will be illustrated here. It has the further advantage of illustrating the proof of accuracy which attends every stage of the work.

If the statements are prepared without the use of a working sheet then the original trial balance, together with a list of adjustments, forms the basis of the statements, and the procedure followed is identically the same as that to be discussed here, except that each account and adjustment is transferred directly to the statement instead of being previously classified in the working sheet. When the working sheet is used, the separation of accounts as between the income statement and the balance sheet is clearly set forth, and the work of preparing statements becomes only that of properly grouping accounts within the statement itself.

14. *Working sheet illustrated.*—On page 161 is the working sheet of Richard Brown. The reader will note that the first two columns contain the first trial balance that was drawn off after the records for the month of May had been completed. The next two columns to the right are the debit and credit columns in which the adjustment entries are posted.

The provision of columns for adjustments obviates the necessity of drawing off a new trial balance from the ledger after the adjustment entries have been posted to the ledger accounts, as was illustrated on page 138.

The next two columns to the right contain all the economic accounts which contribute to the profit or the loss for the period. The net balance of these two columns, whether it be a debit or a credit, indicates the loss or profit respectively for the period. Since the net change in profit or loss for the period is a change in the net worth, the amount of the profit or loss is transferred to one of the two right hand columns where the proprietor's net worth is shown. These two extreme right hand columns contain the assets and liabilities of the organization as well as the proprietor's account, against which the loss is charged or to which the profit is added as the case may be.

It will be seen that the two right-hand columns become a new trial balance with the economic accounts eliminated and their net balance of credit included as one figure, which is the excess of income over expenses.

15. *Extending the working sheet.*—After the adjustments have been posted to the working sheet the first step is to analyze the accounts in the trial balance, make the adjustments and distribute the balances over the next four columns, assigning to the credit or debit of profit and loss all economic items which affect in any way the progress of the business

WORKING SHEET, MAY 31, 19—.

Folio	Accounts	Trial Balance Before Adjustments		Adjustments		Profit and Loss		Balance Sheet	
		Debits	Credits	Debits	Credits	Debits	Credits	Debits	Credits
1	Richard Brown, capital		$17,000 00						$17,000 00
2	Cash	$8,155 00						$8,155 00	
3	Merchandise purchases	17,600 00		$700 00	$8,000 00	$10,300 00			
4	Furniture and store equip't	600 00						600 00	
5	Model Equipment Company		200 00						200 00
6	J. Jones	4,200 00						4,200 00	
7	Merchandise sales		12,270 00				$12,270 00		
8	Discount gained		80 00				80 00		
9	Salaries	180 00		100 00		280 00			
10	Discount lost	70 00				70 00			
11	J. Lane	3,000 00						3,000 00	
12	General expense	50 00		5 00		55 00			
13	E. Batten		4,000 00						4,000 00
14	G. E. Rogers	1,570 00						1,570 00	
15	J. Walsh		2,600 00						2,600 00
16	Rent	300 00			150 00	150 00			
17	Office expense	275 00				275 00			
18	R. Brown, drawing account	150 00						150 00	
	Trial balance totals	$36,150 00	$36,150 00						
	Accrued liabilities				705 00				705 00
	Salaries accrued				100 00				100 00
	Prepaid rent			150 00				150 00	
	Merchandise inventory			8,000 00				8,000 00	
	Total adjustments			$8,955 00	$8,955 00				
	Net profit for month					1,220 00			1,220 00
	Profit and loss totals					$12,350 00	$12,350 00		

and classifying, under the balance sheet debits and credits, the assets, liabilities and proprietorship accounts. Brown's capital account is a net worth item and consequently appears among the credits in the balance sheet. Similarly the debts to the Model Equipment Company, to E. Batten and to J. Walsh are all extended among the credits of the balance sheet since they are liabilities of the business. The adjustments of accrued liabilities, $705, and salaries accrued for $100 are true liabilities as of May 31, and are entered as such in the balance sheet credit column.

Cash, with a balance of $8,155, is an asset and appears among the debits of the balance sheet columns. Similarly the furniture and store equipment is also an asset and, therefore, is a balance sheet debit. The customers' accounts of J. Jones, J. Lane and G. E. Rogers are also assets in the form of accounts receivable and are so listed in the balance sheet columns. Richard Brown's drawing account is a balance sheet item since it is an eventual deduction from his capital but, since debits and credits are classified in the working sheet according to their destination and not according to their relation to any particular account, we do not deduct this $150 from Brown's capital but rather carry it into the balance sheet among the debits so that it can later be treated as a deduction from his capital account. Prepaid rent, which was set up in order that the asset portion

of the rent payment might be accurately expressed on the books, is a legitimate asset as of May 31 and appears in the balance sheet as a debit; the same remarks apply to the merchandise inventory of $8,000.

16. *Disposition of economic accounts.*—The profit and loss credits, which are in other words income accounts, are in this illustration made up of only two items, namely merchandise sales of $12,270 and the discount gained, $80, which resulted from discount taken by prompt payment of bills of creditors.

The expenses which are assignable to this income are made up of a number of items. The merchandise purchases as shown by the original trial balance amounted to $17,600. It was later ascertained that $700 of merchandise had been received but not recorded on the books; consequently, this $17,600 must be increased by $700 which gives a total of $18,300 worth of merchandise to be accounted for. The inventory of merchandise shows that there was left on hand at the end of May $8,000 of merchandise valued at its cost. This leaves $10,300 of merchandise which was disposed of during the month of May, and this amount is the cost of the goods that were sold for $12,270. The purchases are a deduction from the income, and therefore, the $10,300 is classed as a profit and loss debit. Similarly, salary of $180 plus the adjustment of $100 and the discount of $70, which was lost on the prepayment of customer's accounts, as well as the general expenses including the

$5 adjustment and the office expense of $275 are all expenses incurred by the business in order to realize the sales for the month of May.

Separate consideration must be given to the item of rent. The trial balance shows a total charge of $300 for rent but it was discovered that $150 of this was rent for the month of June so that the expenses of the month of May should be charged with only $150. This is accomplished by deducting the adjustment credit of $150 from the original charge of $300 and carrying the balance of $150 into the profit and loss columns as a debit.

17. *Profit for the month.*—By totaling the debits and credits in the two profit and loss columns, we find that there is an excess of credits over debits amounting to $1,220. Since all the income and expenses of the month of May have been accounted for, this amount represents the profit earned in that month. In order to maintain the equilibrium of all sections of the working sheet, this $1,220 is entered as a debit to profit and loss and as a credit in the balance sheet. The debit to profit and loss, when added to the totals originally obtained for these two columns, produces an equality of debits and credits here. The same amount is carried as a credit in the balance sheet since it represents an addition to the proprietor's net worth and will ultimately be grouped with his capital account of $17,000 less his withdrawal of $150. This transfer corresponds to the journal entry on page 145

where profits were transferred from profit and loss to R. Brown's drawing account.

By adding the debits and credits of the balance sheet we find that the total of each is $25,825. This is our proof that the amounts have been extended correctly and that they have been accurately adjusted by the various adjustment postings. This proof will make it clear that the final balance sheet is in reality a trial balance with the economic accounts summarized and expressed by their net balance only. If the balance sheet columns should not agree then the extension of the trial balance figures plus or minus the adjustments would have to be checked over.

REVIEW

In what respects are accounting books as such inadequate to the needs of the executive?

Define financial statements.

What are the two types of statements and what does each show?

Explain the purpose of the working sheet.

Describe how the working sheet is proved out.

CHAPTER X

FINANCIAL STATEMENTS (Continued)

1. *Preparing the statements.*—The types of statements required and the sources of data for them have already been explained. Let us now consider the form and construction of these statements.

The following is the statement of income and profit and loss of Richard Brown for the month of May. It contains identically the same information that is given in the profit and loss columns of the working sheet tho this information is now classified in a form which makes it more readily intelligible to the executive. It may be studied without any mental grouping of accounts or computation of the totals of any group or the results at various stages.

RICHARD BROWN
STATEMENT OF INCOME, PROFIT AND LOSS
FOR THE MONTH ENDING
MAY 31, 19—.

Sales of merchandise..........		$12,270.00
Cost of sales		
Purchases of merchandise....	$18,300.00	
Less inventory May 31, 19—.	8,000.00	10,300.00
Gross profit on sales..........		1,970.00

Selling and administrative expenses		
Salaries	280.00	
Office expense	275.00	
Rent	150.00	
General expense	55.00	
Total		760.00
Profit from operations		1,210.00
Other income		
Discount gained		80.00
Gross income		1,290.00
Discount lost		70.00
Net income for month.........		$1,220.00

2. *Comments upon income statement.*—In preparing financial statements great emphasis is laid on the grouping of accounts. However, by reason of the small number of items involved, the value of correct grouping is not illustrated very clearly in the foregoing statement. Even here tho, it is made apparent that mistakes in grouping or variations in groupings from time to time will disturb any comparisons which might be made.

Brown's statement starts off with the total of sales and the total of purchases. Purchases are reduced by the amount of the inventory on hand at the end of the period and the balance remaining is deducted from the sales in order to determine the gross profit on sales. From this gross profit on sales is deducted the

total of selling and administrative expenses. The accounts in this group are set forth in detail in order that each may tell its own story, as well as contribute its part to the story of the group of which it is a part.

Deducting the total of selling and administrative expenses from the gross profit on sales leaves net profit from operations, which in this case is $1,210. To this profit from operations must be added other income, the result of financial transactions which are not directly a part of the regular business operations. Discount gained is Brown's only such item and by adding this we obtain a gross income of $1,290. From this must be deducted any direct charges against income, of which discount lost is the only account. There remains a balance of net income of $1,220 for the month. The fact that this agrees with the amount shown in the working sheet is proof of the mathematical accuracy of the income statement.

3. *Preparation of the balance sheet.*—On page 170 is shown the balance sheet of Richard Brown, also compiled from the data previously collected in the working sheet. Segregation and grouping of items in the balance sheet is just as important as in the income statement. Among the assets we normally have the current assets, made up of cash, notes receivable, accounts receivable and inventories, together with any other assets which are not primarily vital to the continuance of the business and which are readily convertible into cash or its equivalent. The objection

that inventories are not current values may sometimes be raised. As a matter of fact, the heading "current assets" implies both ready realizability and constant flow or convertibility. The inventories, then, being subject to constant change, properly belong among the current assets, providing they have been accurately and conservatively valued. Damaged, out-of-date and unsalable goods naturally are not current assets and should not be included under that classification.

Following current assets there will be listed the fixed or permanent assets, representing values that are tied up in buildings, equipment, etc., that can not be readily converted into cash. In other words, they represent property essential to the continuance of the business. If disposed of they would have to be replaced. In this case, office and store equipment is the only fixed asset. Finally, will be recorded any prepaid expenses, such as prepaid rent.

The standard classifications of liabilities are first, current liabilities made up of those items which must be paid within the next month or the next few months and which will have to be liquidated out of the current assets which are displayed opposite on the left-hand side of the statement. These are followed by fixed liabilities and capital.

Richard Brown's accounts contain only two classes of credits, namely, the current liabilities and the capital account.

RICHARD BROWN
BALANCE SHEET
MAY 31, 19—.

ASSETS

Current Assets			
Cash		$8,155.00	
Customers' accounts			
J. Jones	$4,200.00		
J. Lane	3,000.00		
G. E. Rogers ..	1,570.00	8,770.00	
Merchandise inventory		8,000.00	
Total			$24,925.00
Furniture & store equipment			600.00
Prepaid rent			150.00
Total assets			$25,675.00

LIABILITIES AND CAPITAL

Current liabilities			
Creditors' accounts:			
Model Equip. Co.	$ 200.00		
E. Batten	4,000.00		
J. Walsh	2,600.00		
Misc. accruals	705.00	$7,505.00	
Accrued salaries		100.00	
Total			$7.605.00
Capital account:			
Balance May 1, 19—.		15,000.00	
May investment		2,000.00	
Profit for May		1,220.00	
		18,220.00	
Less withdrawal		150.00	
Capital May 31, 19—. ...			18,070.00
Total liabilities and capital			$25,675.00

4. *Details of the balance sheet.*—The items going into Brown's balance sheet are specifically set forth in the working sheet and the present task is one of classifying and arranging them in the proper order. The balance sheet prepared here is one in which the current assets appear first among the debits and the current liabilities first among the credits; in other words accounts are arranged in the order of time of realization or liquidation. As will be seen later there are a number of ways in which the accounts both in the income statement and the balance sheet can be listed. The particular form to be followed is dependent upon the necessities of the individual case.

We have detailed in this balance sheet the individual customers' accounts and creditors' accounts in order that Brown may know the amount due from each customer and due each creditor. In order that the total of accounts receivable and the total of accounts payable may also be known, the individual amounts have been set one column to the left and then their totals extended into the next right-hand column along with any other items of current assets or current liabilities. By adding the two central columns the total current liabilities of $7,605 may be compared with the current assets of $24,925 out of which they must be liquidated.

The item of accrued salaries has been set apart from the other current liabilities for two reasons: (a) because it is desirable to show separately the amount due to trade creditors, and (b) because the liability

which arises out of the salaries due is, in most instances, legally in a different class from other liabilities. Salaries constitute a preferred claim upon the business and should be separately stated in the balance sheet.

Since there is only one equipment account and only one prepaid expense account, separate headings have not been given to these; the separation has been indicated by showing each amount in the extreme right-hand column which signifies that each account entered there represents a distinct balance sheet classification.

The capital account has been given in considerable detail in order that thru the balance sheet alone Brown may obtain a bird's-eye view of any changes that have been effected in his net worth for the period. It will be noted that the $150 withdrawal charged against Brown for the month of May has now been entered as a deduction from the net worth or proprietorship. This is the proper procedure since withdrawals are a specific reduction in the amount of the proprietor's investment in the business.

5. *Another illustration of statements.*—The principles just discussed with reference to the preparation of the working sheet and the financial statements are unchanging no matter how many accounts may be involved. The following is a trial balance, list of adjustments, working sheet, income statement and balance sheet of an organization where the variety of the

product and the extent of the business done necessitates more accounts than were illustrated in the books of Richard Brown. To avoid repetition, the trial balance is not listed separately but shown in the working sheet since it is understood that the initial trial balance and the first two columns of the working sheet are identical. Inasmuch as the procedure followed is the same as that outlined in the case of Brown, no space need be given to the method of their preparation other than to present the forms themselves with a brief explanation of the new items introduced.

The adjustments for the period that must be made are:

(a) Unpaid rent expense $50.
(b) Interest receivable on loan accrued $20.
(c) Commissions due but unpaid $278.50.
(d) Inventory on hand December 31, 19— $1,500.

The journal entries to record these transactions follow:

Rent, taxes and insurance	$50	
To liabilities accrued		$50
For expenses incurred but not yet recorded		
Accrued interest receivable	20	
To interest income		20
For accrued interest on loan		
Commissions to salesmen	278.50	
To commissions accrued		278.50
For commissions due and unpaid		
Inventory (new)	1,500	
To inventory (old)		1,500.
To set up new inventory on books		

JOHN SMITH

WORKING SHEET, DEC. 31, 19—.

Accounts	Initial Trial Balance		Adjustments		Profit and Loss		Balance Sheet	
	Debits	Credits	Debits	Credits	Debits	Credits	Debits	Credits
Accounts receivable (total)	$4,140 00						$4,140 00	
Accounts payable (total)		$2,692 00						$2,692 00
Notes Payable		658 00						658 00
Notes receivable	2,320 00						2,320 00	
Loan advanced to J. Smith prop.	500 00						500 00	
Cash on hand	1,044 00						1,044 00	
Bank overdraft		1,065 00						1,065 00
Inventory Jan. 1, 19—	3,020 00			$1,500 00	$1,520 00			
Purchases of merchandise	7,386 00				7,386 00			
Sales of merchandise		13,406 00				$13,406 00		
Office salaries	1,045 00				1,045 00			
Traveling expenses of salesmen	503 00				503 00			
Interest paid	173 00				173 00			
Stationery	284 00				284 00			
Rent, taxes and insurance	222 00		50 00		272 00			
Sales allowances	258 00				258 00			
Freight inward	206 00				206 00			
General expenses	151 00				151 00			
Commissions to salesmen	147 00		278 50		425 50			
John Smith, capital		3,249 00						3,249 00
Rental income		329 00				329 00		
Liabilities accrued				50 00				50 00
Accrued interest receivable			20 00				20 00	
Interest income				20 00		20 00		
Commissions accrued				278 50				278 50
Inventory (new)			1,500 00				1,500 00	
Profit and loss transfer					1,531 50			1,531 50
	$21,399 00	$21,399 00	$1,848 50	$1,848 50	$13,755 00	$13,755 00	$9,524 00	$9,524 00

JOHN SMITH
STATEMENT OF INCOME AND PROFIT AND LOSS
FOR THE YEAR ENDING DECEMBER 31, 19—.

Sales		$13,406.00	
Less sales allowances		258.00	$13,148.00
Cost of sales			
Inventory Jan. 1, 19—.	$3,020.00		
Purchases	7,386.00		
Total	10,406.00		
Less inventory Dec. 31, 19—.	1,500.00		
		8,906.00	
Freight inward		206.00	
Cost of goods sold			9,112.00
Gross profit on sales			4,036.00
Selling expenses			
Traveling Expenses	503.00		
Commissions	425.50	928.50	
Administrative expenses			
Office salaries	1,045.00		
Stationery	284.00		
General Expenses	151.00	1,480.00	2,408.50
Net profit from operation			1,627.50
Other income			
Rental income		329.00	
Interest income		20.00	349.00
Income charges			1,976.50
Rent, Taxes, Insurance		272.00	
Interest paid		173.00	
Total			445.00
Net income			$1,531.50

JOHN SMITH

BALANCE SHEET

DECEMBER 31, 19—.

Assets		*Liabilities*		
Cash on hand	$1,044.00	Accounts payable	$2,692.00	
Accounts receivable	4,140.00	Bank overdraft	1,065.00	
Notes receivable	2,320.00	Notes payable	658.00	
Loan	500.00	Liabilities accrued	50.00	
Interest receivable accrued	20.00	Commissions accr'd	278.50	
Inventory	1,500.00			
		Total		$4,743.50
		Capital		
		John Smith Prop.		
		Jan. 1, 19—	$3,249.00	
		Gain for year	1,531.50	4,780.50
	$9,524.00			$9,524.00

6. *Comments on statements.*—Several features are presented here that are not found in the statements previously discussed. The bank overdraft, for example, is a new form of liability and, since it is unusual, should be listed separately. Attention is called also to the method of treating initial and closing inventory, whereby the closing inventory is deducted from the sum of the opening inventory and the materials purchased during the period. Freight paid on merchandise bought must be considered as an addition to the cost of the goods.

The net results of John Smith's business for the year resulted in a gain of $1,531.50. This amount

would appear as a credit balance in the profit and loss account which in turn would be transferred to the credit of Smith's capital account. In order that the balance sheet may present as much information as possible, it is sometimes customary to indicate the period's changes in net worth in the balance sheet itself. Consequently, we have here listed separately the addition of the year's gain.

7. *Monthly statements.*—The preparation of monthly statements raises one question that does not come up in connection with annual or semi-annual statements. So far as the balance sheet is concerned, the information contained in it is always the same, namely, the status of the asset, liability and capital accounts. Profit and loss statements, however, since they measure the changes that have transpired over a period of time, must be based upon data for the month, the six months, or the year, as the case may be. Economic accounts which furnish the information going into the profit and loss statements are closed out yearly and new accounts opened for recording the results of transactions of the next succeeding year. At the end of the first month of the new year the economic accounts will contain a record of transactions for that particular month; at the end of the second month however the total of the economic account balances will be the results of transactions for two months and in monthly statements we want to pick up only transactions of the particular month covered by the statement.

Actually this requirement raises no serious questions. Monthly figures can always be obtained by subtracting balances at the beginning of the month from the balances at the end of the month, the difference being the results of transactions for the month. This form of trial balance can be drawn off directly from the ledger accounts and, besides the service it renders in the preparation of statements, it also helps to localize the proof of the trial balance, since separate proofs can be made for monthly figures and for the cumulative totals.

8. *Gross income and cost of sales.*—The statement on page 175 illustrates the standard groupings of accounts and indicates the importance of grouping. However it is desirable to consider in greater detail the principles which govern the grouping of accounts in the statement and the purpose of setting up these various statement groups.

The first heading is gross income, from which the cost of sales is deducted. Frequently a concern will have more than one source of income and will carry sales accounts with each line of product. For example a grain dealer selling a number of different kinds of grain would have a purchase and sales account with each product and would want to show, under the heading of gross income, the individual sales of each product, as well as the total sales of all products. Similarly, in deducting the cost of sales, there would be listed separately the items of cost, segregated according to the sources of income, and the

net difference remaining would be the gross profit on sales.

9. *Selling expenses.*—Selling expenses are those incurred in the work of marketing the product of an enterprise. They include the cost of advertising, salesmen's salaries and commissions, salesmen's traveling expenses, as well as all other items related to the sale of merchandise. The grouping of particular accounts will vary among organizations somewhat as the nature of business differs, tho the fundamental rule that any expense that is attributable to selling effort is a selling expense will always govern.

10. *Administrative expenses.*—In carrying on a business there are many functions which give rise to expenses of an administrative nature. Such expenses are not a part of the cost of goods sold nor are they direct selling expenses tho they may sometimes be indirectly so. Ordinarily, administrative expenses include all the costs of maintaining offices and directing the business as well as that part of the executives' salaries which is not directly chargeable to the cost of the product or to the selling effort.

11. *Other income.*—In practically every line of business there will be some income which is not a part of the main activities. In a manufacturing concern, for example, scrap material will be sold at intervals and bring in an income which is not a part of the regular business and which should not be classified with general merchandise sales. In addition, interest on

money and discount earned, as has already been seen, are items of income which arise on special occasions and not as a part of the regular business. Many times these items of other income are of such nature and amount that they should be set forth in separate accounts and given separate expression in the income statement. For example, where the financial transactions of an organization are heavy, there will be large amounts of discounts received on prepaid bills and interest earned on temporarily excess bank balances.

The management may also have been able or obliged to invest money in stocks or bonds which have nothing to do with the conduct of the regular business. A sole proprietorship of the type of Richard Brown probably would entirely separate such purchases from his business and carry them as personal investments. Corporations and partnerships are frequently obliged to invest their money in this way but can not so segregate the assets purchased and as a consequence must treat the income received as an addition to their net worth. Where such conditions exist it is highly essential that a clear expression be given to the source of such income.

Some large public service corporations and holding companies receive practically all their income from investments of this sort. The American Telephone and Telegraph Company is a good illustration and a reference to its published income statements will show that a large part of its income is derived

from the dividends received on the stock of companies that it controls or from interest on money that it has loaned to subsidiary or affiliated companies. In such a case the other income received far outshines in importance the income from operation.

12. *Deductions from income.*—Similarly there are expenses which are not the result of operations but rather of financial transactions. Cash discounts taken by customers when paying their bills, interest on money borrowed, taxes levied by the municipality or the state for the privilege of doing business and the like, are all matters of financial operation and not a direct expense of carrying on the business. All such items should be classed under deductions from income. The management will want to compare these deductions with the income from financial transactions to determine whether or not this phase of the enterprise is on a satisfactory basis.

Every account appearing in an income statement falls into one of the classifications mentioned above, except those items of profit or loss referred to in sections 13 and 14 of chapter VI.

Profit and loss charges or credits are given a separate heading in the income statement, because they do not pertain directly to the income or cost of operation of the period which the statement covers. It is entirely conceivable that a business will make large operating profits during the year, but because of unfortunate investments or a disastrous fire, may suffer such losses as to more than wipe out the profits

earned. In studying statements, one always observes the normal trend from year to year and it certainly would be quite unjust to treat the extraordinary losses as reductions in the current period's income. For that reason, these items are carried under a separate section. Where accounts have not been set up for them they will be carried to the debit of the profit and loss account in the ledger. Still in the preparation of the income statement separate account titles should be given to each item of any appreciable amount. This will require an analysis of the charges and credits which have been made to the profit and loss account.

13. *Divisional groupings.*—The purpose of grouping accounts in sub-classifications, which identify thru separate groups of accounts the elements of cost of goods sold, selling expenses, administrative expenses, etc., is to make more intelligible the comparisons which are drawn between the various groups of accounts. Thus, if we have the total sales for a series of years, the total cost of sales, the total selling expenses and the total administrative or other expenses for the same period of time, each one of these items can be compared separately and any increases or decreases that may have resulted can be quickly detected. Furthermore, this grouping of accounts enables the executive to determine the disposition of his gross income as it is applied to meet expenses at the various stages in the conduct of his business. It also facilitates comparisons between firms and helps

to point out where one firm is losing or at least is on a less profitable basis than another.

14. *The functions of the balance sheet.*—Because of the fact that the balance sheet is a financial statement of such a fundamental nature, it is important not only from the viewpoint of the proprietor but also from the viewpoint of the banker or any other creditor, the investor or any one who is at all interested in the financial condition of the business. A statement of net worth is of little aid. It is the status of the items comprising this figure and the relations which they bear to one another that is essential.

Thus, for example, it is a matter of no little importance to know that a net worth of $25,000 has resulted from assets of $200,000 and liabilities of $175,000 rather than from assets of $35,000 and liabilities of $10,000. In the one case the ratio of liabilities to assets is 87.5 per cent whereas in the other case it is 28.6 per cent. The ratio of liabilities to assets, however, is not the only point which the balance sheet must cover, It must show further the character of the assets and liabilities, since these have an important bearing on the business conditions and upon the possibility of liquidating liabilities as they come due. Furthermore, signs of strength and weakness in the conservation of profits earned are displayed in the relations which the various accounts bear to one another.

15. *Basic forms.*—The form presented for Richard Brown on page 170 is a standard form since both as-

sets and liabilities are arranged in the order of their availability. In this statement the assets are shown on the left and the liabilities on the right. We have already noted, however, that assets minus liabilities equal net worth. Often, balance sheets are presented in "report form" as illustrated in the following exhibit in which the amounts have been omitted since they have no bearing on the point to be illustrated.

STATEMENT OF ASSETS AND LIABILITIES

Assets		
____________	....	
____________	....	
____________	....	
Total assets		....
Liabilities and capital		
____________	....	
____________	....	
____________	....	
____________	....	
Total liabilities		....
Proprietorship		
____________	....	
____________	....	
Total proprietorship		....
Total liabilities and proprietorship		....

16. *Classification of balance sheet accounts.*—The liabilities and assets are always grouped in certain standard classifications which facilitate the determination of the financial condition of the business and point out more clearly the effect of policies as they are worked out. Among the assets we find three standard groups, namely, current, deferred and fixed assets. The first and last named groups have already been defined.

Under the classification of deferred assets, often called deferred charges or prepaid expenses, are those expenses which have been incurred in one period for the benefit of a subsequent period. In other words they are expense items which will not be consumed until some date subsequent to that of the balance sheet.

17. *Liabilities.*—Current liabilities have already been discussed. There is another type of liabilities, called fixed liabilities, such as mortgages, bonds or other liabilities which do not mature in the immediate future and which are not a direct deduction from the amount of current assets. They may be considered as offsetting fixed assets.

Other liabilities are contingent liabilities which will arise only upon the happening of a certain event. These liabilities do not ordinarily appear in the balance sheet, except as a footnote in order that their possible effect may not be overlooked. Whenever a customer's note is discounted a contingent liability is raised. If the maker of the note does not pay when

it matures, the indorser must. Whenever such discounted notes exist some mention of that fact should be made in the balance sheet in order that any one examining it will not entirely lose sight of the fact that the business may be subjected to the payment of a liability which does not appear as such on the books at that time.

18. *Order of arrangement.*—There are numerous arrangements in which accounts may be listed in both the profit and loss statement and in the balance sheet. The profit and loss statement is generally narrative in form. The balance sheet, because of the variety of uses to which it is put, however, is subject to greater change in form. Sometimes the form is one which emphasizes the more favorable relationships and obscures the unfavorable. Thus if the ratio of current assets to current liabilities is not satisfactory it is sometimes customary to arrange the accounts in the order of their permanency rather than the order of their availability and start off on the asset side with the fixed assets followed by other assets in the reverse order from the one illustrated in this chapter. Similarly, the liabilities would be expressed in reverse order.

On the other hand, when the relationship between the current assets and current liabilities is a satisfactory one, these accounts are usually set first in order that the favorable relationship may not escape the attention of anyone who should be impressed with the sound financial condition of the business.

19. *Condensed statements.*—In many organizations where the number of accounts to be presented in the statements is large the expedient of using condensed statements with explanatory supplemental statements is frequently followed. The condensed statements contain the same general information as the detailed statements but are prepared by combining like items into one amount and showing the total of these only. Thus, for example, instead of listing in detail all the inventories if there are a number of different kinds of stock carried, one single amount would be shown representing all inventories. Similarly, accounts receivable would all be grouped into one total. Likewise prepaid expenses, no matter how many different accounts may be involved, would be listed in one amount. On the liability side, accounts payable, miscellaneous accruals and deferred credits or income received but not due would be shown in totals without any details as to the accounts which go to make up the various groups.

While these condensed statements are of particular value in bringing out the main trends and relationships, they seldom throw any light upon the causes of the changes that have taken place. It becomes necessary, therefore, to prepare supplementary statements which contain the details of all the items which have been summarized and grouped in the condensed statement. From the supplementary statements any amount of detailed investigation which is desired becomes possible.

20. *Mechanical features have their part.*—In statement preparation, form is practically as important as is method in the accounting processes. The reader will note the standardized heading which appears on all the statements as well as the arrangement of that heading. The use of several columns to set off classification totals and to emphasize details, while at the same time separating them from the totals, produces clearness. In fact, the headings and sub-headings are prerequisites to the proper identification of groups and items. Even the dollar signs and the rulings play a part since it is only by standardizing their use that the form of the statement becomes so much a matter of habit that the same procedure is always followed. This results in the big advantage that the form is never given prominence over the substance of the statement itself. Freakish variations in form frequently distract the attention from the subject matter to the extent that the meaning and purpose of the data is in whole or in part overlooked.

21. *The importance of the inventory records.*—It is undoubtedly apparent to the reader that neither the profit and loss statement nor the balance sheet is possible unless an accurate inventory of the merchandise on hand has been taken. In the larger organizations where the cost of material is subject to constant fluctuation and the quantities involved are excessive, a complete physical inventory every month is a practical impossibility. In fact, until comparatively recent times monthly statements were deemed im-

possible in many organizations simply because inventories could not be taken and it was believed that statements based upon an estimated inventory were dangerous and liable to be less helpful than no statement at all.

It is true that reliable inventories are a necessary preliminary to the determination of profits and a statement of the financial condition. If the inventory has been overstated, the profit for the period and the total of the assets will be correspondingly overstated. If the inventories have been under stated there will be shown in the statements a loss or a reduction in profits which does not exist in fact. The value of the information obtained from monthly statements, however, is so great that the expense of computing monthly inventories from the stock record will be fully justified.

22. *Balance sheet valuations.*—The balance sheet is in effect a statement of the relations of the business to the public. On the left hand side is listed separately the possessions of the business. On the right hand side the apportionment of these total possessions between the various classes of outside creditors and the proprietor is indicated. There can usually be no question as to the accuracy of the outside liabilities. They are fixed in amount and certainly will be collected in full, providing the business is able to pay them.

No such certainty of valuation can be attached to the assets, however. Values fluctuate from day to

day, according to the working of various influences. In addition to these fluctuations, it is conceivable that very often assets will have been placed on the books at figures which do not correspond with their true market value. As a matter of fact, no one can say positively that any particular figure constitutes the true value of any type of asset other than, of course, cash. Some assets are easily measured, others are practically impossible of measurement. The point to be borne in mind, however, is that the valuations placed upon assets listed in the balance sheet are assumed to be the most reasonable valuations that can be given to them. In many cases they are estimates, but they are estimates which are based upon sound reason and should be conservative.

23. *Impossibility of registering true values.*— From the foregoing the reader need not necessarily become fearful and doubtful of balance sheet valuations. For a going concern which is expected to continue in business, the book values of assets are usually considered reliable. It need only be said that they are not the final valuations and in the next chapter the reader will find a discussion of the procedure necessary to bring the book values closer to the true values of assets.

REVIEW

State the groups into which the income statement accounts and balance sheet accounts are divided.

List the accounts in the order generally followed in preparing a balance sheet.

Explain what is meant by the narrative form of statement.

How are monthly income statements prepared?

What are condensed statements and what purpose do they serve?

CHAPTER XI

APPRECIATION AND DEPRECIATION

1. *True business profit.*—It was intimated at the close of the preceding chapter that the book values of assets were not necessarily true values. Many factors intervene to cause the true values to fluctuate above or below the values carried on the books. No attempt is made to record some of these fluctuations on the books, either because they are only temporary or because they are changes which can not be measured thru the accounting records.

Accounting, however, does attempt to measure many of these fluctuations and express their results in the records. Since conservatism is a prerequisite to successful accounting, it becomes decidedly more important to show in the records the effects of the changes which have reduced the value of assets than to show those changes which may have increased values. Again, a distinction is made as to the type of asset which has changed in value and as to the nature of that change.

For example, an increase in the value of a building, unless the building is held as an investment with the intent of reselling, is seldom expressed on the books as a part of the regular accounting procedure. Only

under unusual conditions would an increase in the valuation of an asset of this type be entered. On the other hand, however, if a building used for manufacturing purposes has decreased in value by virtue of the wear and tear in use, as it surely must, then this decrease in value becomes a part of the cost of operating the business during the period, a cost which should be charged to operating expense.

Again a machine used in manufacturing loses a part of its value on account of the wear and tear incidental to the manufacturing processes. This wear and tear is as much a part of the cost of manufacturing the product as is the material or labor that enters into the work. Other factors besides wear and tear, as we shall see later, contribute to the decrease in value of the assets.

2. *Effect of fluctuations in value.*—In the income statement it was observed that the excess of income over expenses for a year constituted the increase in net worth for the period. In the balance sheet it was shown that net worth was the net excess of assets over liabilities. If, therefore, there have been no additional investments or withdrawals of proprietor's capital during a certain period of time, then the profit for that period can be obtained by subtracting the net worth at the beginning of the period from the net worth at the end of the period.

The foregoing, then, reveals that the changes measured by the income and expense accounts have also been reflected by changes in the assets and lia-

bilities. Hence, the net income for a period, whether it is determined by subtracting expense accounts from income accounts or by subtracting net worth at the beginning of the period from net worth at the end of the period, must be the same.

Thus it becomes possible to ascertain the net worth of a business by taking periodic inventories of assets, by enumerating the liabilities and then subtracting the total liabilities from the total assets. If this procedure is followed regularly, each increase in net worth of one period over the preceding period will be the profit for that period, assuming that there have been no additional investments or withdrawals of capital and that each asset is valued on the same basis at the beginning and end of each period.

If the value of any asset at the end of a period has increased over the value at the beginning of the period, the increase being due not to additional investments but rather to a temporary rise in market value, then unless this increase in value is recorded, the net worth as determined by the appraisal method is going to be greater than the net worth as shown by the books and, at first glance, the books would seem to present an incorrect view of the condition of the business. If values had decreased there would also be a corresponding discrepancy but of an opposite nature. Consequently, we are confronted with the problem of reconciling these variations and adjusting the records so that they will present a reliable statement of the business condition. As will be seen not

all variations in values are recorded since some of them are temporary only and hence unimportant to the permanent operation and direction of a business.

Among the types of changes in value which should be recorded is depreciation. This is justified for example in those cases where the cost of manufacturing is dependent partly upon the consumption of labor and materials and partly upon the consumption of machinery and other fixtures or equipment used in the manufacturing processes. Again, there may be certain assets which, tho not used in actual manufacturing, are still a part of the business and decrease in value thru business use; if so, the net worth of the business becomes automatically less than it would be if these asset values had remained constant. Consequently the accounting records must provide a means of measuring all such changes.

3. *Measuring changes.*—The changes in value which are to be measured are those which are permanent in nature. The most obvious method of measurement is to take a complete inventory thru regular periodical appraisal of assets. There are many objections to such a procedure, the main ones being (a) the impracticability of obtaining uniformly accurate appraisals, (b) the time required to make such appraisals, (c) the cost both in time and service in obtaining appraisers who are capable, and (d) the fact that it would be unwise to burden the income or expenses of any one period with temporary fluc-

tuations in market value which might later be offset entirely thru fluctuations of an opposite nature.

4. *Temporary fluctuations unimportant.*—This last point is worthy of still further elaboration. When capital is invested in a business, the investor expects a return in the form of income from this investment and measures the value of his investment by the return which it brings to him. It is immaterial whether investments are made by original contributions or whether they come from an accumulation of profits which the proprietor does not withdraw. This capital fund is invested in the various assets which are essential to the conduct of the business. Other assets may be acquired thru the creation of liabilities and are included with those acquired by the expenditure of capital funds. The two become inextricably mixed so that the respective interests of the proprietor and the creditors can not be related to any particular asset, except when specific assets are pledged to secure certain creditors.

This combined fund of capital invested and funds borrowed, then, is the element with which the business is financed and thru the use of which the proprietor's income is earned. Since this is true, the proprietor does not concern himself with the temporary market fluctuations in the values of any of his assets, other than those which are his stock in trade and which are held for resale by him. The only changes which will permanently affect the amount of his investment

or the amount of his profits are those which arise thru wastage resulting from the ordinary conduct of business, decreases or increases in value due to the passing of time and the changes in business which result in a permanent loss of value from any other cause. This final factor is illustrated in the case of a machine which becomes valueless because of the invention of another machine which will do the required work better or cheaper or both.

5. *Appreciation is not usually recorded.*—Increases in value are seldom shown on the books, unless these increases are known to be permanent or unless some special circumstance arises to justify changing the book values. Since, however, every executive is interested in permanent increases in value, the question sometimes arises as to the proper procedure to be followed.

For example, a building location costing $50,000 may become worth $75,000 at the end of a few years. If physical inventories were taken from year to year and book values adjusted accordingly, the proprietor would be justified in putting a valuation of $75,000 on this building and in turn increasing his proprietorship account by a like amount. The consequence might not be serious in the case of a sole proprietorship, yet the situation would be entirely different if the same procedure were followed with respect to a partnership or corporation. The appreciation of $25,000 would increase the book record of net income and

would apparently result in there being that much more profit available for distribution to partners or stockholders.

The increase in profits or proprietorship, however, would not have been offset by any increase in available current assets and the withdrawal of these extra profits would without question cripple many an organization by reducing its working capital below the danger mark. In a well-managed business there is such a nicety of balance between the amount of capital required to carry on the business and the balance in the proprietorship account, that any error in judgment will frequently endanger the success of the business thru too great a reduction of its working capital.

Since working capital is that portion of the capital funds which have been set aside to insure the continuance of a business, a gradual increase in working capital must go hand in hand with any expansion of business. Whenever profits are distributed to the owners, the funds of a business will be permanently reduced by the amount of such distribution. Since distribution of profits is made from current assets and since working capital is represented in the same assets, care must always be used in planning distribution of profits to see that the amount of current assets is not reduced below the figure essential to maintain an adequate working capital. Permanent assets, such as buildings, machinery and the like, can not be distributed, so that any increase in profits

which has resulted from an increase in value of such assets does not provide any increase in the assets of the type which can in turn be withdrawn by the proprietor.

If for one reason or another it does become desirable to record the permanent increase in the value of any asset, this increase should never be credited to the proprietorship account, but rather to some other account which will by its nature indicate the source of the credit. The account most commonly used is called "reserve for appreciation." The entry for recording appreciation on the building location mentioned above would be as follows:

Building	$25,000.00	
To reserve for appreciation		$25,000.00
To record permanent increase in value of building as per appraisal of —————— on —————— 19—.		

In considering the subject of appreciation more space was devoted to it than perhaps the importance of the subject deserves from the practical accounting standpoint. This was deemed necessary in order to introduce properly the subject of reserves. Let it be emphasized, however, that appreciation is rarely a matter of bookkeeping record.

6. *Reserves.*—The meaning of a reserve account is not vague. The title itself indicates that it represents an amount withheld for some special purpose.

These amounts are always withheld from proprietorship, in order that proprietorship may be stated at its true figure rather than at the figure which would result if reserve accounts were omitted. The amounts so withheld can not be withdrawn so long as they are carried in the reserve account. When amounts have been reserved out of profits to provide for certain other purposes, as is illustrated later, the reader will see that the amounts so withheld automatically produce an increase in the amount of working capital. At the same time the proprietors are permitted to withdraw for their own use all other earnings after reservations have been set aside.

7. *Reserve for depreciation.*—The reserve account most frequently found in balance sheets and the one most commonly understood is the "reserve for depreciation." Depreciation is exactly opposite in meaning to appreciation. It constitutes the reduction in the value of assets which occurs with the passing of time as contrasted with appreciation, which, of course, defines the increase in value of assets over a period of time.

There are many ways of defining depreciation. Boiled down, they all have the same meaning, namely, that depreciation is the loss in value of tangible assets resulting from physical decay, from obsolescence or from inadequacy. Depreciation is not the result of one cause, but rather of many causes; because of this fact many complications attend its scientific measurement.

8. *Causes of depreciation.*—Time probably is the primary cause of depreciation. Every asset, except land, deteriorates with the passing of time. Of course, unusual factors such as increasing value of real estate and the like may at times give rise to appreciation which will offset or more than offset depreciation, but enough has been said against attaching too much importance to appreciation.

Time causes depreciation, first, when the asset depreciated decreases in value because of the direct wear and tear in transacting business and, second, because of the deterioration due to the passing of time. In fact, some assets deteriorate more rapidly when inactive than when in active use.

9. *Obsolescence.*—The second factor or cause of depreciation is obsolescence; this is perhaps the element most difficult of measurement. Obsolescence means the probability that a piece of machinery will become valueless to the business long before it is worn out, because its place will have been taken by some newer invention which produces so much more cheaply as to make the further use of the older machine unwise. There is always a possibility of any machine becoming obsolete, tho the danger is less in the older, well-established industries than it is in the newer ones where there is a more intense searching for economies and a constant improvement in manufacturing processes. It may be interesting to note that the United States Treasury Department recognizes a reasonable provision for obsolescence

as a just deduction in the determination of net income for tax purposes.

With an understanding of what depreciation is and how it is caused let us see how it can be computed for use in the accounts.

10. *Elements of depreciation.*—In identifying and measuring depreciation the essential factors which are to be considered are (a) the cost of the asset; (b) its working life, in other words, the length of time during which the asset can be productively and profitably employed; (c) the scrap value, which is the final salable value of the asset when it is disposed of after its useful life has ended; and (d) the method which is to be employed in determining the amount of monthly or yearly depreciation to be set aside.

The cost of any asset can easily be determined from the records. The life and the residual value of standardized and commonly-used products have been quite definitely ascertained from past experience, and depreciation tables from which the length of service and residual value of many assets can be determined have been prepared by engineers and are available for general use. The residual value, however, depends in part upon the fluctuations in market value and in part upon the possible obsolescence of the particular product concerned.

11. *Need of providing for depreciation.*—The methods of computing depreciation and accounting for the depreciation set up vary according to the asset

to be depreciated. As was shown in earlier sections of this chapter, depreciation has a direct effect upon the profits of a business. In fact, depreciation is a part of the cost of doing business and as such should be charged in with the other operating expenses. Every business man must realize that since depreciation reduces the value of his assets, it must be provided for in his balance sheet or else public opinion as to the conservatism of the values stated there will be unfavorable.

There is another phase of depreciation which often receives insufficient attention. As equipment wears out some provision for replacing it must be made. With the best of intentions, a concern will often fail to accumulate funds as rapidly as they are needed for replacement of worn out equipment, unless some special measures are provided to compel it to do so. Setting aside depreciation out of earnings at regular intervals will practically compel the withholding of funds, so that by the time a particular piece of the equipment is worn out, there will have been accumulated a reserve sufficient to meet the amount of depreciation and thus have withheld from distribution the funds for the necessary replacement.

12. *Regular provisions essential.*—Organizations will frequently be found where depreciation has been ignored for years. Sometimes the proprietors have assumed that, by keeping their assets in constant and proper repair, they have not only expended large sums of money on their equipment but have obviated the

necessity of further provisions. The fallacy of this argument will be appreciated if the subject of obsolescence is borne in mind. As a matter of fact, the argument defeats itself, since if they have had to expend large sums in the past, it is obvious that as time goes on and as the assets grow older their expenditures of this nature will increase.

Other arguments take the stand that appreciation in the value of some assets will at least compensate for the depreciation in other assets. This argument is equally illogical. Assume a business with $50,000 worth of equipment and with land and buildings worth $100,000 of which the land value at cost was $40,000. As time goes on the value of the building and the machinery must decrease. It is possible, however, that due to changes in market value, the land will increase in value. No one would attempt to prove that the increase in the value of the land would in any way provide a fund out of which replacements of building or machinery could be made. In order to prove their theory that appreciation fully compensated for depreciation, it would be necessary to sell the land on which their building is located, in order to realize the increased value which lay in it. When the sale was consummated, say at a figure of $75,000, there would then be available $35,000 which could be used for replacement of other assets. But obviously the business can not afford to part with its plant land, for if it did it would immediately have to secure a new site. The proper

procedure, then, is to set up regularly each accounting period an amount which will on the average provide for depreciation in all fixed assets.

13. *Creation of reserves.*—It has been said that in accounting for depreciation a reserve account is used. At first glance, therefore, it may seem peculiar that appreciation is measured in the accounts by a reserve, while depreciation, the exact opposite of appreciation, is also measured by a reserve. Upon analysis, however, it will be seen that reserves must always be considered in conjunction with the accounts to which they relate. The appreciation reserve is set up to recognize increases in the value of an asset and, at the same time, to avoid overstating the distributable profits of the business; the depreciation reserve is set up to measure the true value of the asset to which it relates and also to withhold from free profits amounts which will be required in a subsequent period for replacement. Reserves for depreciation are created by charging the periodic business profits with the sum which measures depreciation in that period and crediting this amount to the reserve account. This procedure should be followed every period without fail if the reserve is going to fulfill its purpose. We shall see in the next chapter the precise method of accomplishing this on the books.

14. *Depreciation of current assets.*—Before leaving this phase of the subject let us consider briefly depreciation as applied to current assets. Depreciation on current assets is computed upon a basis different

from depreciation on fixed assets. As a matter of fact, current assets which comprise the working capital of a concern are consumed within such a brief interval that in most instances they can not be said to depreciate. Any loss in value which occurs is not depreciation in the sense that we have defined it, but rather the result of fluctuations in the market value of the elements in question.

Whenever a loss has occurred in current assets the reduction in value must be measured and reflected in the accounts, if conservative statements are to be prepared. For example, the standard ruling today is that inventories and the like should be valued at cost or market value, whichever is lower. Observance of this rule means that the cost value uniformly prevails unless the present market value is less than cost, in which event, in order that balance sheet values may be conservatively stated, the market value will prevail. This rule applies particularly to current assets, because they are the assets which are in a perpetual state of flux, and, even tho the changes may be temporary, they may not have come into balance by the time the assets are disposed of. Furthermore, to pick up such assets at the market value, when the cost is below market, would increase profits without any certainty that these increased values would be realized upon. Again we are confronted with the above-mentioned dangers of increasing profits by crediting the appreciation to income or to net worth,

a practice which, as has been said, is uniformly to be discouraged.

Profits can not be earned except thru a closed, completed transaction; otherwise they are simply "paper profits." Losses, however, are frequently incurred before a transaction is completed.

15. *Price fluctuation.*—Perhaps this thought will be clearer if we assume the case of a merchant who acquires a stock of goods at a cost of $50,000. Because his organization is not complete, he has made no sales at the end of the first month and yet, because of change in market values, his stock has become worth $65,000. Can we say that he has made a profit of $15,000 and can he withdraw that profit for his own use? Obviously the answer is no. If he wishes to increase the book value of his merchandise from $50,000 to $65,000 he should credit this increase to a reserve account until such time as his actual profit is known.

Under reverse conditions, when the same $50,000 worth of merchandise has fallen to a value of $35,000 during a month when no sales were made, should we say that the assets of this merchant are now worth $35,000? The answer here is yes. It is true that these values may shift back, but conservative accounting practice requires that the loss be recognized and the assets correctly stated.

While appreciation is designated by a credit to a reserve and a charge to the asset, depreciation should

be indicated by a charge against income and a credit to a reserve.

REVIEW

Explain the distinction between depreciation and appreciation.

How is each recorded?

Give the journal entry for recording appreciation of $5,000 in the value of land held.

State the elements of depreciation.

Explain how the accumulation of a reserve for depreciation affects working capital.

CHAPTER XII

ACCOUNTING FOR DEPRECIATION AND OTHER RESERVES

1. *Factors of measurement.*—In establishing the method according to which depreciation is to be figured and in determining the rate of depreciation, we have only three factors upon which to work, the cost of the asset, its probable life and its residual or scrap value at the end of its useful life. As has been seen only the first factor is a definitely known quantity, the other two being almost entirely speculative. Furthermore, obsolescence in many lines of business is such an active factor that it can be usually counted upon to throw out any calculations that may be made. Some machines, even the best of their type, because of new inventions and improved methods become comparatively useless after a few years.

It is usual, however, to figure depreciation from causes other than obsolescence and then make an allowance for this element. In respect to the above factors we can state a rather obvious formula that will show the amount of depreciation that must be provided for. The equation, depreciation equals cost minus scrap value, shows the amount that must be reserved during the expected life of the asset.

2. *Depreciation methods.*—The standard methods of computing depreciation, any one of which may be adopted under certain circumstances, are as follows:

(a) An equal proportion of the amount to be depreciated is written off each year.
(b) The assets will be written down from year to year by deducting depreciation at a fixed rate of per cent upon the balance remaining on the debit side of the asset account at the beginning of the year.
(c) An equal yearly sum is written off which will be sufficient at the expiration of the life of the asset to reduce it to its residual value, after debiting the asset and crediting revenue each year with interest at a fixed rate upon the amount invested at that particular time in the asset in question.
(d) The asset will be re-valued from time to time and the decrease in value treated as the realized depreciation for the year.

The first method mentioned above is more widely used than any other altho it is particularly adapted to a situation where the life of the asset is known and where the asset has practically no residual value. Leasehold property is an asset which can well be depreciated under this method since at the expiration of the term of the lease there will be no value left

and it can safely be assumed therefore that the passing of each year results in an equal decrease in the value of the lease.

Under the second method the charges against income gradually become less as time goes on and, therefore, this method is often called the reducing instalment or declining balance method. In theory, at least, this method equalizes the full depreciation charges and renewals over the several years of the life of the asset. When assets have been acquired at various times, however, and when the useful lives of these assets have varying expirations, it is not easy to ascertain the status of any particular asset; nor can it be said that this method is always the most accurate and satisfactory.

3. *The annuity method.*—The third method, also known as the "annuity method," is rather complicated. It is based upon the assumption that interest upon the amount of capital invested in operating assets should be included in the cost of production. Based upon this theory, then, the depreciation should be a sum sufficient to write off the wastage in value plus interest charges for the period. The rate of depreciation is computed by intricate mathematical formulæ or else with the use of annuity tables. Briefly speaking, each year the book value of the asset is increased by the interest on the capital invested in the asset and an equivalent amount is credited to income. The depreciation instalments, extending over the estimated life of the asset, are charged to provision for

depreciation and credited to the depreciation reserve.

The gross charge for depreciation is constant from year to year, while the credit to income, in respect to interest on capital invested, annually diminishes, as the book value of the asset in question is reduced by the increasing amount of the reserve accumulated. The natural result of this method is an increasing charge to expense as time goes on. In the final analysis there is no exaggeration of profits thru charging interest on capital, because there is also an increased charge to expenses for depreciation.

This method, however, is too complicated for use in the average business and is subject to the usual objections against charging interest on capital invested as a part of operating cost. Arguments for and against charging interest on capital are more fully covered in the Modern Business Text on "Financial and Business Statements." The method itself is most frequently followed in the depreciation of buildings, as it can not well be applied in cases where a number of different assets, acquired at various times, are to be depreciated.

4. *The appraisal method.*—The fourth method involves the periodic appraisal of all assets. Its accuracy depends upon the ability of the appraisers. Good appraisers may not always be available and the work itself is a long and tedious undertaking. The fact that under this method appreciation as well as depreciation is considered is disadvantageous from a conservative standpoint.

5. *Rates of depreciation.*—The determination of rates is to a great extent a matter of judgment supported by a knowledge of local conditions. While depreciation tables serve as a guide, authorities in different parts of the country do not agree as to the rate of depreciation in specific cases. Take for example, the life of steam boilers: in the Southwest where there are deleterious substances in the water, the life of a boiler is shorter than in New England where boilers have been known to give good service for as long as thirty years. Buildings of the type constructed today are capable of long life and, unless the element of obsolescence enters, the rate of depreciation will be low. Fireproof buildings of modern construction depreciate only from one to two per cent annually.

6. *Depreciation of intangible assets.*—Thinking of depreciation in the ordinary sense of the word it can not be said that intangible assets such as good-will, copyrights, trade-marks, patents, etc., depreciate. On the other hand, it is unquestionably true that with the possible exception of good-will and trade-marks, intangible assets often lose all or at least part of their value over a period of time. This is so because, as in the case of patents and copyrights, time is the essence of their value to a business.

Without splitting hairs over the proper word to describe the decrease in value of intangibles it may be said that they should be written down in value and a corresponding charge made against the profits from

year to year. This practice of writing down intangible values holds good for all assets that fall in this category, including good-will and trade-marks.

It may seem peculiar at first glance that good-will, which derives its value solely from the profits made, should be written down as long as business continues good. Some authorities, for example, claim that good-will can not be depreciated as long as the profits maintain their regular volume and that good-will should be written down only in the years when profits are not up to normal. This policy is not only lacking in conservatism but may often be serious in results. In the years when profits fall off there is a chance that profits will be insufficient to take care of the depreciation or loss in good-will. Conservative accounting practice, therefore, requires that good-will be gradually written off and in the public balance sheets of many of the most progressive corporations of the country the reader will find good-will valued at merely a nominal sum.

The other intangible items mentioned should be written off according to the number of years that they are expected to be of value. The basic value of these assets, upon which depreciation is figured, is the original cost of purchase or development plus all subsequent costs incurred in protecting them. The expected life will seldom if ever correspond to the legal life. Obsolescence attacks the value of such assets more quickly perhaps than it does any other asset carried by the average business. This fact is

so generally recognized now that even the Treasury Department for tax purposes does not require the cost of patents, copyrights, etc., to be spread over the terms of their legal life.

It should be noted that accounting procedure in depreciating intangible assets is usually somewhat different from that followed in the case of tangible assets. In the latter instance it is the usual practice to set up a reserve to hold the amount set aside from profits so that replacement can be made later. In the former a reserve is seldom set up but the charge against profits is credited directly to the asset account.

7. *Depreciation of mines, oil wells, etc.*—Mines, oil wells, etc., are wasting assets whose value lies in the amount of product which can be obtained from them. It is evident that each ton of coal taken from a coal mine reduces the value of the property. Strictly speaking, a reserve for depreciation should be created out of the proceeds of each ton sold in order to provide a fund with which to return to the stockholders their investments when the mine can no longer be worked profitably. In coal mines, competent geologists can estimate approximately how many tons of coal are available and the calculation of a rate for depletion based upon this estimate in conjunction with the cost is a comparatively simple matter. Altho the procedure is not so easy or accurate in respect to some other mining and oil properties, yet it is the customary method to follow

when it is desired that provision for depreciation be made.

In practice, however, such companies rarely provide a reserve for depreciation or depletion. When no reserves are set aside and dividends are assumed to be all profits, many unsuspecting stockholders value their investment in the light of the return which they receive on it and do not realize that with every dividend they are getting, in fact, a return of part of their capital. It would seem desirable in some respects to require companies of this type to adopt a reserve for depletion. To do so, however, would perhaps raise troublesome questions relative to the disposition of the accumulated amount of current assets which would remain in the business to offset the accumulation in the reserve account. These funds could not be re-invested profitably in the business and would be a constant temptation to the executive officers to make unwise outside investments or initiate disastrous speculation. So perhaps it is better in the majority of instances to continue the practice of distributing all profits as dividends without attempting to reserve any part of them in depletion reserves.

8. *Accounting for depreciation.*—After the rate and amount of depreciation have been determined, an entry must be made at the close of each accounting period charging depreciation expense and crediting depreciation reserve. When there are different kinds of assets to be depreciated there should be as many depreciation reserves as there are classes of as-

sets. To group all depreciation under one heading is confusing to the outsider who reads the statement and at the same time makes it more difficult for the accountant to keep in close touch with any particular asset or class of assets. The journal entries for recording monthly depreciation on a building, the amount of depreciation on which is $1,000 per month, is as follows:

Provision for depreciation on building	$1000	
To reserve for depreciation on building		$1000
Depreciation for the month of——		

The debit items of such entries are expenses which are closed into the profit and loss account at the end of each year and treated as expenses in the monthly and yearly statements.

9. *Depreciation not a credit to the asset.*—There are two methods which may be followed in recording the credit phase of depreciation entries; the credit may be made directly to the asset so that at the end of each accounting period the book value of that asset is reduced by the amount of depreciation set aside, or the reservation may be credited to a special account called reserve for depreciation. Ordinarily, however, it is not advisable to credit these reserves against the assets and reduce their value on the books. No matter how carefully the depreciation rate may have been determined it is not easy to set up a rate which will accurately measure the decrease in value. At best, depreciation reservations are estimates and

are uniformly recognized as such. If the asset is written down each month by the amount of depreciation set aside, then the book value of that asset is in many cases improperly stated.

It is always desirable to show the total original cost of every type of asset and the amount of depreciation that has been set aside in order that the practice of the concern with respect to setting aside depreciation can be determined from the statements.

10. *Disposition of assets.*—Another accounting question arises when assets are disposed of. The entries necessary to record the scrapping of a machine will probably illustrate this point more clearly than a lengthy explanation. Assume the case of a machine costing $1,000 on which, in accordance with the regular practice for computing depreciation, $600 of depreciation has been set aside. A new machine is acquired at a cost of $1,500, which will produce a far greater output than the old and the old one is disposed of for $100. The journal entries necessary to record properly these transactions would be as follows:

Machinery	$1,500	
To Cash		$1,500
To record purchase of new machine		
Cash	100	
Profit and loss	300	
Reserve for depreciation of machinery	600	
To machinery		1,000
To record disposition of old machine sold for $100 cash.		

The reader will note that the machine in question was sold at scrap value of only $100 altho there was an undepreciated value of $400 on the books. This $300 lost is rightly charged to profit and loss, since it represents the amount not written off over the period of useful life of the machine but which would have been written off if the effects of obsolescence had been given full recognition.

11. *Reserves in the balance sheet.*—In the preparation of the balance sheet, two equally satisfactory methods are available for handling the reserves. As each asset is listed on the left-hand side of the balance sheet the amount of the accumulated depreciation reserve may be placed directly under it and subtracted therefrom so that only the net amount, the excess of the asset over the depreciation, is extended into the total column. When the reserves set aside have been accurately calculated, that is to say when the assets are such that depreciation can be accurately computed, then it is preferable to follow the method just mentioned. If the depreciation, however, is an estimate only or if, for one reason or another, the amount of depreciation is materially in excess of the actual requirements then all reserves should be grouped in a separate section on the right-hand side of the balance sheet. In many organizations, there will be certain types of reserves which do not relate specifically to any asset and under such circumstances all reserves are usually found on the right-hand side under a separate heading.

12. *Reserve for bad debts.*—Next to the depreciation reserve, the reserve most commonly found in balance sheets is a reserve for bad debts. It is commonly realized that sound accounting practice requires that every sale be recorded when it is made, regardless of whether payment has been received in cash or not. It is also recognized that, of the total sales made on account during any year, a certain percentage is practically sure to be uncollectable since there will always be some individuals who buy without intent to pay and others who buy with an honest intent but a lack of ability to pay. Business men generally recognize this avenue of loss, altho they can not foresee at the time the exact amount or which particular accounts will become uncollectable in the future.

It is, of course, desirable to express in the balance sheet the total amount of all such assets and to show, as an offset against this amount, that which it is expected will be lost because of bad debts. Perhaps a better way of stating this would be to say that it is desirable to show on the books the total sales for the year when these are bona fide sales made with the expectation of collecting payment for them. Also, since it is appreciated that some of these sales will prove uncollectable for one reason or another, there should be stated as an offset against the sales an amount which will take care of losses expected to be sustained; in other words, an amount which will reduce the gross income from sales as shown on the

books as closely as possible to the amount which it is reasonable to expect will be realized.

13. *Computing bad debt reserves.*—Outside of mere guesswork there are two standard methods of computing bad debt reservations, both of which are based upon the past experience of the business concerned. Some business men regularly set aside a certain percentage of the total outstanding accounts. Thus if at the end of the month there is outstanding $100,000 of accounts receivable and past experience shows that the percentage of losses runs three per cent of outstanding accounts, then the reserve for bad debts should be $3,000. At the end of the following month only enough would have to be added to the reserve for bad debts to bring it up to 3 per cent of the accounts then outstanding.

The other method is based upon the idea that out of a given volume of sales only a certain percentage will be realized. If the experience of a concern shows that over a period of years its losses have been 2 per cent of its sales, then out of each month's or each year's gross sales there should be set aside 2 per cent which would be charged to expense and credited to the reserve for bad debts. It will be seen that under this method the amount of the reserve bears no direct relation to the outstanding accounts at any period of time and the periodic reservation is always based upon gross sales and constitutes an addition to the amount already carried in the reserve account.

This method seems more logical since it is evident that the bad debts bear a more direct relation to volume of sales than they do to outstanding accounts. Furthermore, the policy of many organizations is lax with respect to the writing off of bad accounts or the classification of accounts according to whether they are sure of collection or doubtful of collection. In such instances if the reservation is based upon the amount of outstanding accounts at any time it may be inadequate if an unusually large amount of doubtful accounts has been permitted to accumulate and remain in these balances. Whenever it is possible to determine the proportion of bad debts to total sales, this method seems the more desirable one to follow.

14. *Accounting for bad debt reserves.*—When reserves for bad debts or any other reserves are set up, the expense charge arises when the reservation is made and not when the actual loss is sustained. The loss is anticipated in the amount reserved. This is illustrated in the following entries which have to do with the bad debts of a business:

Reservation for losses	$2,000	
To reserve for bad debts		$2,000
Amount reserved for month of———		
Reserve for bad debts	500	
To accounts receivable		500
To write off against the reserve the loss on the account of————Co.		

The first entry is an estimated monthly average of total losses while the second transfers the actual

loss on one account from accounts receivable to the reserve account. This transfer is not made until a loss is definitely ascertained.

15. *Service reserves.*—There are numerous other reserves found, tho none are so common and standardized as the reserve for depreciation and the reserve for losses from bad debts. Organizations which do the type of business that requires the rendering of services after the sale is made should set aside a reserve out of each sale sufficient to cover the cost of service to be rendered. If they do not do this and yet state each gross sale at its full face value in the income account, they are omitting from the expenses a charge to cover the services that will have to be rendered in the future and are overstating the income of any period by the value of those services.

This will perhaps be clearer if a typical case is used as an illustration. Assume that an automobile dealer gives a guarantee of three months' service on every car that he sells and that on the average this service costs him $50 per sale. If he does not charge income with $50 on the sale of each car to cover service to be rendered in the future, he is overstating his profits on current sales. If the equivalent funds are withdrawn as profits are distributed, the subsequent payment of service expenses may be seriously deplete the supply of current assets.

Of course, when such a reserve is set aside, the expenses actually incurred for the service will be charged against the reserve and not against the in-

come of the period in which service is rendered. When such expenses are charged to the reserve, they should not be charged direct but rather accumulated in separate classified accounts the total of which will be deducted from the reserve at regular intervals. This total should always be considered in conjunction with the balance in the reserve when the status of the reserve account is to be ascertained. These separate expense accounts are desirable in order that the executive may know how much is being expended for the various kinds of service chargeable against the reserve and how closely his estimates of these expenses approach the actual costs involved.

In all such cases, of course, the total amount of each sale will be set up as income at the time the sale is made.

16. *Other reserves.*—There are also reserves provided for contingencies and for sundry estimated liabilities. The latter are not true reserves and should not be classified as such, since they are nothing more than an estimate of liabilities which are certain to mature but indefinite as to amount. The best procedure to follow here is to estimate the amount as closely as possible and to set this amount up as a true liability under the heading of miscellaneous accrued liabilities as has already been explained in connection with accruals.

Contingent reserves are special reservations made out of profits for special purposes or to meet possible losses. Thus, insurance companies carry special re-

serve accounts which are intended to protect them in case a catastrophe should increase the amount of losses to a figure above the normal expectation. Fictitious contingency reserves are sometimes set up by executives to withhold profits from distribution so as to increase working capital.

17. *Importance of regularity.*—Regularity of accumulation is essential in the setting up of all reserves of whatever type they may happen to be. Many executives follow the practice of charging off large reservations during times when profits are high and reducing or discontinuing reservations entirely when profits are low. Such practice is to be condemned. In the first place, depreciation, for example, continues with practically fixed regularity from year to year whether the profits increase or decrease. The amount of the losses for bad debts may be less in total at a time when business is falling off but, if business falls because of any general depression, the ratio of losses to total sales may be even higher because of that very fact.

The same remarks apply to any reserve which is in any way related either to income or to the passing of time and, to facilitate comparison and give a true picture of conditions, there should be no difference in the methods followed in good years and in bad years. Furthermore, income tax regulations permit the writing off each year of only the amount of depreciation or other losses incurred in that year. Consequently, the executive who writes off a large amount

one year and a small amount in another year may find that he will be permitted to deduct in his income tax return only the actual amount written off in the lean year and only the actual amount of depreciation suffered in the year in which he was more liberal in his provisions.

REVIEW

Describe the four standard methods of computing depreciation.

How would you depreciate intangible assets?

Explain the purpose of a bad debt reserve.

Name the other reserves sometimes found in balance sheets.

What purpose does each serve?

CHAPTER XIII

PROPRIETORSHIP

1. *The theory of proprietorship.*—A study of the accounts or reports of any business enterprise may be made from a number of different angles. The enterprise may be looked upon as an individual entity, having a life and existence of its own, or it may be considered as the servant of, and the expression of the individuality of the owners, who may or may not be directly connected with the business itself. The other points of view concern the needs of the business, the form in which organized, the purpose which is to be accomplished and many other phases which serve to distinguish one organization from another. These latter characteristics do not directly affect the accounting records or the consideration and operation of the accounts.

Accounts must express conditions as they affect individuals; the accounting relations, therefore, are primarily those of individuals with each other. Obviously, the predominant character in any enterprise is the proprietor or proprietors. That is to say, they are the people who are most directly affected by changes in profits or losses. It follows, then, that in the final analysis the accounts are ex-

pected to indicate the status of the business in its relation to the proprietor or proprietors and to indicate the changes that have taken place in this relationship. This simplifies somewhat the theory of accounting, since every transaction can be viewed in the light of its effect upon the proprietorship and with the intent of recording it so that the changes in this proprietorship are carefully and correctly set forth. This gives us a basis for accounting procedure and a common point of relationship which must exist in the record of every transaction.

2. *Proprietorship not a liability.*—The proper recording of proprietorship condition and relations is important not alone because of the direct interest in the proprietor himself, but also because it is the foundation of accounting procedure. Every proprietor of a business, to a greater or less extent, has a voice in the management of that business and has at least a partial control over the factors which bring about changes in the value of his ownership in it. Because of this fact, it is illogical to say, as some do, that the business owes him money and that his investment is a liability of the business.

It is true that the proprietorship, unless there is a deficit, that is, an excess of liabilities over assets, will be expressed by credits in the account. These credits do not become liabilities, however; they constitute the balancing medium which maintains the equilibrium of the accounts and, at the same time, indicates the value of the business to the proprietor or proprietors.

Then proprietorship, where an individual is concerned, is the record of his accumulated investment in the business including undrawn profits.

Where more than one proprietor is concerned, as in partnerships or corporations, it might be held that each individual share of the proprietorship becomes an accountability to be preserved by the collective efforts of all the proprietors. Strictly speaking, however, the account of each individual proprietor is not a liability, even of the collective group to any individual member thereof. It is rather the record of one individual proprietor in respect to his relation to all the proprietors.

3. *Proprietorship a form of right.*—Things are assets of a business because they represent rights which the business possesses. Thus, all the items on the left-hand side of a balance sheet represent rights to use or dispose of the properties possessed by the business. The right-hand side of the balance sheet is also made up of rights but these are rights to share in the things listed on the left-hand side. Thus, out of all the assets, there must be paid the liabilities shown on the right-hand side. The balance that remains is the proprietorship, or in other words, proprietorship constitutes a right to enjoy all the assets that remain free after the liabilities are liquidated.

The right of the proprietor differs so materially from that of outside creditors, however, that it is hardly worth while continuing this thought further. For example, the rights of the proprietor involve

dominion over all the assets and power to use them as he pleases without interference from the creditors except in unusual circumstances. The amount of the proprietor's right fluctuates with the ups and downs of the business, whereas the rights of a creditor remain constant altho they may be materially affected by acts of the proprietor.

4. *Status of the balance sheet.*—Assuming that proprietorship is a form of right rather than a liability, then the balance sheet is certainly a statement of accounts of the proprietors in their relation to the public. There is no absolute rule which requires the amount of the proprietorship to be shown in a balance sheet. The predominant factors which have to be shown are the amount of rights which the business has to use property or to demand property or services from others and, opposed to these rights, the rights which it owes to others and which must be liquidated out of the property rights which it possesses. As far as the general public or even the creditors are concerned, that is all the information they require, and a balance sheet presented in that form would show the proprietorship only as the net balance between these two items.

5. *Classes of proprietorship.*—In the Modern Business Text on "Business Organization," it is seen that there are a number of varying types of organizations which are distinguished more by the form of control exercised and the method in which organized than by the kind of business which they conduct. The gen-

eral classifications are sole proprietorships, partnerships and corporations. It is the duty of accounting to reflect clearly and distinctly the relations existing in any particular type of organization and to differentiate accurately between the relative interests of the proprietors or owners where more than one person has a financial interest in the business.

The problems raised in respect to the recording of proprietorship for a partnership or a corporation differ materially from those of a sole proprietorship. It must be remembered that the true function of accounting is to express actual conditions and actual relationships. Therefore unless every phase of ownership or control is given adequate consideration and complete expression in the accounting records, they do not serve the purpose for which they are intended.

As far as the fundamental accounting processes are concerned, and the maintenance of double-entry principles is affected, it does not matter whether the organization is of the individual, the partnership or the corporation type. Yet, in respect to the record of the individual interests of each co-owner, it is highly essential that the records show the status of each individual part-owner and of each class of part-owners if there are several classes of such.

6. *Sole proprietorship.*—The illustrations that have been presented so far concern the accounts of a sole proprietor, namely, Richard Brown. As far as the recording of proprietorship is concerned, the sole proprietor's records are the simplest of any and raise

practically no questions. The net worth at the close of each accounting period is recorded in the proprietor's capital account after adjustment has been made for any withdrawals during the period.

It was observed that Brown's business was not charged with any specific amount for his own salary, since this is not the customary procedure in the case of a sole proprietorship. Such a practice, however, is not to be commended. It must be realized that the proprietor gives his time to the business and is rendering a service which, if performed by some outsider, would have to be compensated. He is, therefore, entitled to draw a salary commensurate with the value of his services and this salary is a legitimate expense of the business. If the business were purchased by an outsider or if an interest in it were to be acquired, then a salary for the directing executive and for any other participant in the management would be a legitimate expense.

7. *Sole proprietors seldom careful accountants.*—Partly because there is no necessity of dividing proprietorship and partly because a business owned by a sole proprietor is usually small, the sole proprietor seldom makes adequate provision for depreciation or sets aside a sufficient reserve for bad debts or pays much attention to adjustments in the way of accruals and prepayments. This is unfortunate because, when a value has to be set upon a business for the purpose of resale or conversion to some other form of organization, the accurate determination of past profits and

comparative financial status is more or less of a gamble. It is even more important that the proprietor should not overlook the importance of adjusting his records at monthly intervals so that the income and the various items of profit and loss shall not be misstated.

The frequency with which sole proprietors overlook adjustments and reserves of the types mentioned arises out of a lack of appreciation on their part of the constructive help which their records can give them. They are prone to look upon accounting records simply as a history of individual facts which will be used whenever the condition of any particular case is to be analyzed. If they could but realize that the accounts when properly organized can be of inestimable help to them in their direction of the business, they would bend every effort to keep them in better condition.

8. *Showing partners' proprietorship.*—In the case of a partnership we have two or more partners banded together under a certain working agreement which stipulates the status and rights of each partner. Partners often contribute unequal amounts of capital and when profits are divided equally in order that the possible over-contribution of one partner will be compensated for and the under-contribution of another penalized, interest on each individual investment is usually allowed and charged. Some partners may contribute no money at all but simply skill which, as a matter of fact, may be worth more rel-

atively than money or property. To record proprietorship properly in the cases of a partnership then, a capital account, a salary account and a drawing account for each active partner should be carried. The operation of these accounts is similar to that for a sole proprietor.

9. *Corporate proprietorship.*—A corporation, both in its control of its business and in its proprietory records, differs materially from other forms of business organization. The proprietors' control is usually somewhat removed instead of being direct, as in the case of partnerships and sole proprietors. The principles and methods followed in recording business transactions and the financial status of a corporation are based upon the general governing principles of accounting, yet the detailed procedure must bring out the peculiar proprietorship relations of a corporation and this compels a different procedure for corporation accounting.

Proprietorship of a corporation is designated by the distributed capital stock, which in turn measures the ownership of the proprietors in the business. The total amount of the capital stock is limited by the charter of the corporation. Not all the authorized stock, however, need be sold or issued at any given time.

We have seen that partners and sole proprietors often leave a part of their profits in the business, instead of withdrawing them at the end of each year. Corporations also sometimes withhold a part of their

profits from distribution, but these profits are never added directly to any individual proprietor's account, nor are they grouped with the original proprietorship. Undistributed profits are accumulated in an account called "surplus" or "undivided profits." Whenever any distribution of profits is made to the proprietors this distribution is assumed to have been made out of this surplus account and can only be made by the official authorization of the board of directors.

10. *Disposition of undrawn profits.*—Undistributed profits are kept separate from the original capital investment chiefly as a matter of accounting and executive convenience. The laws regulating the formation and operation of corporations are strict in their requirement that under no circumstances can dividends be paid out of capital, on the theory that such action would prejudice the rights of creditors and reduce the capital stock in violation of the various corporation laws. As long as these two accounts are kept separate an examination of the balance sheet itself will reveal the excess of net worth over the original capital invested.

On the other hand partners can withdraw the total amount of their investment at any time without illegally disturbing the rights of the creditors; if the liquidation of a partnership does not provide sufficient funds to pay all indebtedness to creditors, then the creditors have the right to collect any deficit out of the private resources of any one or all of the partners. Except in special instances, the creditors of

corporations have no security other than the assets of the corporation itself. Hence, the provision, that the original capital can not be reduced except by due process of law, acts as a safeguard to prevent any reduction in the margin of security and usually means that there will be sufficient funds to pay all liabilities, even tho the face value of the assets may decline materially in the event of a forced sale.

11. *Recording deficits.*—In line with this procedure, whenever a corporation has incurred a deficit or a series of deficits whereby the losses are in excess of the current income and enough to wipe out the surplus that may have been accumulated from the operations of previous years, the accumulated deficit will be shown as a deduction from the capital in the balance sheet. This shows that the corporation is not making progress, but rather has impaired its capital.

12. *Other phases of proprietorship.*—Proprietorship accounting is such a broad subject that the compass of this book does not permit a full consideration of it. In the Modern Business Text on "Accounting Practice" is a more extensive treatment of the many problems which arise out of proprietorship accounting. Proprietorship has been touched upon here chiefly that we may understand how the fundamental accounting processes have been built up thru the desire of business men to give adequate expression to proprietorship relations and possessions.

REVIEW

Explain why proprietorship is considered the base to which accounting records relate.

Is proprietorship ever considered a liability?

Differentiate between the proprietary accounts of partnerships and corporations.

How should a deficit be recorded?

CHAPTER XIV

MODERN BOOKS OF RECORD

1. *Evolution of modern accounting.*—Up to this point this volume has sought to present the fundamental principles of accounting and to illustrate their application by the use of the simplest records. In actual practice, the records previously discussed would seldom be adequate to meet the demands of modern business. While the principles involved are fundamental and unchanging, the number and form of records varies materially with the type of business in which they are used as well as with the amount of detail desired.

It is axiomatic that economy of operation and the prompt recording and classifying of all data are prime requisites to the successful operation of any system of accounts. The methods and the forms illustrated in the foregoing chapters are slow, cumbersome and ill-fitted to record the intricate and involved transactions which are of common occurrence in a business of any size. If the old fashioned journal were used for recording all entries, the amount of labor required to maintain it and the elaborate explanations that would be necessary in order to explain properly many of the transactions would greatly delay the completion of the records for each month and

also add materially to the expense of their operation.

2. *Inadequacy of old journal.*—The first accounting record that was illustrated in our previous discussion was the journal of Richard Brown and every transaction that Brown carried out was recorded in full in the journal. This procedure was satisfactory when the volume of business was small and the transactions comparatively few. With the volume that is commonly handled by business organizations of today, the old journal form would be hopelessly inadequate. In the first place, one bookkeeper could no longer make the entries of all the transactions; yet the use of only one journal precludes the possibility of splitting up the work so that more than one man can work on it at a time. Thus, if only one journal were used, the advantages of division of labor, long since demonstrated in modern industrial practice, would be lost.

3. *Classification of journal entries.*—If an analysis is made of the transactions already recorded in the journal of Richard Brown, it will be found that they may be grouped as follows:

(a) Those concerned with the receipt and payment of cash
(b) Those concerned with the purchase of goods
(c) Those concerned with the sale of goods
(d) Miscellaneous entries such as opening, closing and adjusting entries.

Whenever the volume of business becomes great

enough to require more than one entry clerk, the old fashioned journal is generally abandoned and in its place are substituted several journals, each being reserved for a separate class of business facts. The exchanges dealing with cash are recorded in the cash journal; those dealing with purchases are entered in a purchase journal; and those concerned with sales are placed in a sales journal. While these subsidiary journals are the standard ones, other sub-divisions may be used whenever the volume or nature of the business warrants further division of labor.

Naturally, with the introduction of so many new books, few entries remain which will appear in the general journal. These entries are of the fourth class mentioned above and embrace those transactions which are so infrequent or so general in their nature that they can not be grouped into any one single class large enough to justify the employment of a separate book for recording them.

4. *Development of columnarization.*—At practically this same stage in the development of accounting practice columnarization is introduced. The object has been to save both time and expense in recording accounting data and to keep the information perpetually classified for ready reference. The subsidiary journals are designed to reduce the mechanical labor of posting and classifying by the introduction of special columns, each one of which contains only items of like nature. For example, all the items of cash received are placed in one column and totaled at

the end of the month. Then the total cash receipts are posted to the debit of the cash account in one single item, which constitutes the total for the month, instead of having a separate posting made for each cash receipt entered, as would be necessary in the old form of journal.

Thus, with two sets of columns in the cash journal, one for cash receipts and the other for cash payments, all cash receipts are segregated to the left-hand column and all payments in the right-hand column. At the end of the month the total of each column is posted in one lump sum to the cash account in the general ledger, the offsetting entries being made to the respective complimentary individual accounts.

This same principle can be extended to the purchase journal and the sales journal so that the total purchases and total sales can be posted respectively to the purchase account and sales account in one sum which covers the total of all purchases and all sales made on account for the month. Due to the limited number of transactions of Richard Brown the full fruits of this saving of labor can not be illustrated to the best advantage. If, however, the number of transactions were multiplied many times, the saving would be brought out in striking relief.

Other important services rendered by columnarization will be more apparent after the reader has observed the operation of controlling accounts as discussed later in this chapter.

5. *The cash journal.*—While a still further sub-

division is sometimes found, whereby one book is used for cash receipts and another book for cash payments, the standard form of cash journal is a single book in which the left-hand page is used for recording cash receipts and the right-hand page for recording cash payments. This form and illustrative entries taken from the transactions of Richard Brown are shown on pages 243 and 244.

Some of the columns shown here illustrate the principle of columnarization. The reader will note that all items which it is expected will appear with any regularity are separately classified by columns and that one single sundries column is shown to which all miscellaneous items occurring infrequently are carried. In this particular case, the important items on the cash receipt side are the net cash received, the amount of discount allowed to obtain this cash and the total payments by customers. On the credit side, we are interested in the total amount of cash paid out, the discount earned by reason of such payments and the total payments to creditors. The explanation of the use of the two columns headed "customers" and "creditors" is found in the discussion of controlling accounts which follows.

6. *Inadequacy of a single ledger.*—Following the same line of reasoning that was applied to the journal, we can see the need for a similiar subdivision of labor in the ledger. The most familiar types of special or subsidiary ledgers are those in which the accounts of customers or creditors are kept. If the

CASH RECEIPTS
FOR THE MONTH OF MAY, 19—.

Date		*Account to be Credited*	*Explanation*	*L. F.*	*Net Cash*	*Discount*	*Customers*	*Sundries*
May	1	R. Brown, capital	Investment	1	$15,000 00			$15,000 00
	4	R. Brown, capital	"	1	2,000 00			2,000 00
	15	J. Jones	On account	7	3,430 00	$70 00	$3,500 00	
		Total receipts		2	$20,430 00	$70 00	$3,500 00	$17,000 00

CASH PAYMENTS

FOR THE MONTH OF MAY, 19—.

Date		Account to be Debited	Explanation	L. F.	Net Cash	Discount	Creditors	Sundries
May	2	Mdse. purchases	Cash purchase	3	$7,000 00			$7,000 00
	4	Furniture and store equipment	" "	5	400 00			400 00
	12	J. Smith	On a/c	4	3,920 00	$80 00	$4,000 00	
	12	Salaries	To date	10	80 00			80 00
	20	General expense		13	50 00			50 00
	28	Rent	For 2 months	17	300 00			300 00
	31	Salary	To date	10	100 00			100 00
	31	Office expense		18	275 00			275 00
	31	R. Brown drawing account		19	150 00			150 00
		Total payments		2	$12,275 00	$80 00	$4,0000 00	$8,355 00
	31	Balance			8,155 00			
					$20,430 00			

number of these accounts is large, difficulty will be encountered in keeping the postings up to date where only one ledger is used, since only one man can work on the ledger at a time. The segregation of such accounts in separate ledgers gives all the advantage of economies thru subdivision of work and at the same time makes it possible to employ lower-salaried employes on the purely clerical work; furthermore, as many clerks as are necessary can be employed to keep the work up to date.

7. *Need for controlling accounts.*—The use of subsidiary journals, the columnarization of these books and the segregation of classes of accounts to separate ledgers all took place more or less simultaneously with the introduction of the controlling account in the development of our modern accounting systems. In fact, the controlling account and the subsidiary journal both work toward the same end. A controlling account is an account carried in the main ledger which represents the total of one class of accounts carried in a subsidiary ledger. It should be remembered that the general ledger must be constantly maintained in a state of equilibrium, that is to say, the total of the debits must equal the total of the credits. So if we take all the customers' accounts, for example, out of the general ledger we will have removed an amount from the debit side of the ledger equivalent to the total of these accounts, and unless this amount is replaced, the ledger will not be in equilibrium.

The difficulty is overcome by substituting a customers' controlling account in which the debit balance is the total of all the individual customers' accounts, By replacing a number of accounts in the general ledger with one amount equal in amount to all, the equilibrium of the general ledger is not disturbed. The accuracy of the subsidiary ledger can always be proved by making sure that the total of the balances in it agrees with the balance in the controlling account in the general ledger.

In the same manner, if we segregate the creditors' accounts in a separate ledger, there will be placed one single controlling account in the general ledger to take the place of the accounts removed. These two controlling accounts just mentioned are generally called, respectively, customers' controlling account and creditors' controlling account.

8. *Operation of controlling accounts.*—Since the controlling account must at all times reflect the total of the individual accounts, it becomes necessary to post every transaction to the controlling account as well as to the individual account, and vice versa. Again referring to our illustration, if a sale of goods is made to a customer, we must of course charge the individual customer's account with the amount of the sale if we are to know at all times the status of his relation to the business. At the same time, the same amount must be debited to the customers' controlling account or else the balance in that account will not be equivalent to the total of the individual accounts.

In the same way, as customers remit on account, the credits are posted individually to each remitter's account in order that he may be given credit for the amount paid. Then in order that the equilibrium of the ledgers may be maintained and the total of the controlling account reflect the total of the individual accounts, similar postings must be made to the controlling account.

9. *Impracticability of controlling accounts with old journal form.*—If the old style of journal were used, the procedure above outlined would necessitate a duplicate posting of every item, once to the controlling account and once to the individual account. Instead of saving time this would, in the long run, prove more costly than the plan of carrying all accounts in one ledger. The introduction of special journals, however, and the provision for special columns within these books, have made the controlling account the important factor in accounting that it is today.

If a column is provided in the cash journal for the charges to creditors, then as far as the controlling account is concerned, a posting of the total charges for the month to the controlling account brings the same result as would separate debits to the controlling account for each individual payment. Furthermore, since a separate individual account is kept in a subsidiary ledger it is a simple matter to make the individual charges or credits from the cash journal to each individual account. Thus, we have

two postings, tho the individual amounts are posted but once to the individual accounts in the subsidiary ledger, and then the total of all postings to the subsidiary ledger as shown by the various columns are posted in one lump sum to the proper controlling account. This is done, of course, after the record of the month's transactions has been completed and the total of the debits and credits for the month ascertained by adding up the columns in each journal.

Of course, there will be some transactions which can be expressed only by entry in the general journal and unless separate columns are provided in this journal to cover transactions affecting controlling accounts, duplicate individual postings of these items must be made. The number will always be small but it is necessary for the bookkeeper or accountant to understand the principle of controlling accounts and realize that whenever he has made a posting to an individual's account, he must, in some way, make a similar posting to the corresponding controlling account.

10. *Closing the cash journal.*—Naturally, if separate postings were made for each individual cash transaction, little would be gained thru the use of a separate cash journal or the columns it contains. Consequently, the posting of the cash journal differs slightly in procedure from that followed with respect to the general journal. It must be remembered that a primary requisite in any book of original entry is the necessity and the possibility of proof of accuracy. In this particular case, on the left-hand side or the re-

ceipt page, illustrated on page 243, we have first a record of the cash received. This naturally is a charge to the cash account. Discount allowed on cash receipts, which amounted to $70, is an expense incurred in obtaining the cash and is also a debit. Remittances by customers are credits to the customers' accounts and the total of the customers' accounts column is naturally credited to the customers' controlling account in the general ledger. As far as the sundries column is concerned, it reflects only credits to general ledger accounts; and each individual item in this column must be posted separately to its proper account in the general ledger. Hence we would have to post $15,000 and $2,000 to the credit of Brown's capital account. However, for the purposes of proof we could formulate an entry as follows:

Cash	$20,430.00	
Discount lost	70.00	
To customers' controlling account		$3,500.00
Sundries (posted)		17,000.00

11. *Posting closing amounts.*—The above entry proves that the total debits and total credits of the left-hand page of the cash book are equal and postings to the respective accounts in the general ledger can be made for net cash, discount lost and customers' accounts. Instead of posting the total of $17,000 for sundries to any particular account, the reader will note the word "posted" has been inserted in parenthesis following the word "sundries." This in-

dicates that each individual credit has been separately posted to the general ledger account affected as entries for the month were made.

Practically the same explanation applies to the right-hand or cash payment page. The proof is expressed in the following entry:

Creditors' controlling account	$4,000.00	
Sundries (posted)	8,355.00	
To Cash		$12,275.00
Discount gained		80.00

The total of the net cash paid and the total of the discount earned is credited to the cash account and the discount earned account, respectively, in the general ledger. The total of the payments to creditors is charged to the creditors' controlling account and the various items in the sundries column will have already been posted individually to the general ledger accounts affected.

Thus it will be seen that when the detailed posting to the subsidiary ledger has been completed, and the total posted to the controlling general ledger account, we have not violated the rule already laid down that any posting to an account in a subsidiary ledger must be in some way posted to the controlling account in the general ledger.

12. *The sales journal.*—In the sales journal there is recorded, of course, all sales made on account. The illustration given below is that of a simple form of sales journal adapted to the business of Richard Brown. This book is also practically self-explana-

tory. Its operation follows the same principles as those laid down for the cash journal. The left-hand monetary column contains the amounts to be debited individually to the customers' accounts and in total to the customers' controlling account. The right-hand column shows the amount to be credited in total to the merchandise sales account. Where more than one commodity is sold there would be other credit columns, each containing the sales of one single commodity.

SALES JOURNAL FOR THE MONTH OF MAY, 19—.

Date	*Name of Customer*	*Explanation*	*L. F.*	*Amount*		*Mdse. Sales*	
5	J. Jones	2% 10 days	7	$3,500	00	$3,500	00
18	J. Lane		12	3,000	00	3,000	00
22	G. E. Rogers		15	1,570	00	1,570	00
27	J. Jones		7	4,200	00	4,200	00
				$12,270	00	$12,270	00

This journal would be closed and posted at the end of the month thru the following entry which the reader will note also proves the equilibrium of the books:

Customers' controlling account	$12,270.00	
To merchandise sales		$12,270.00

13. *The purchase journal.*—The form of purchase journal in which the purchases of Richard Brown have been recorded is illustrated on the following page.

PURCHASE JOURNAL FOR THE MONTH OF MAY, 19—.

Date	*Name of Creditor*	*Explanation*	*L.F.*	*Amount*	*Mdse. Purchases*	*Asset Purchases*
2	J. Smith	2% 10 days	4	$4,000 00	$4,000 00	
4	Model Equip. Co.	Furn. & Equip.	6	200 00		$200 00
21	E. Batten		14	4,000 00	4,000 00	
25	J. Walsh		16	2,600 00	2,600 00	
				$10,800 00	$10,600 00	$200 00

14. *Comments on purchase journal form.*—The manner of entering purchase transactions can be readily understood from the form itself. The total amount of the purchases is entered in the amount column and this amount distributed over as many columns as may be required to classify purchases.

This book is also subject to proof since it is a journal by nature and the transactions individually or collectively must represent an equality of debits and credits. The book would be closed by the following entry:

Merchandise purchases	$10,600.00	
Furniture and store equipment	200.00	
To creditors' controlling account		$10,800.00

Since it is assumed that Richard Brown has now introduced controlling accounts in his general ledger, and segregated his creditors' accounts to a subsidiary ledger, the total amount credited to the creditors' controlling account in the general ledger would also have to be credited individually in the subsidiary

creditors' ledger to the various creditors involved. This means that J. Smith would have to be credited with $4,000, Model Equipment Company with $200, and so forth.

15. *Proof of controlling accounts.*—Just as the main ledger must be balanced at regular intervals thru a trial balance, so must each individual subsidiary ledger be proved out with its particular controlling account. This is done by drawing off a list of the balances in the individual accounts in the subsidiary ledger and verifying that they agree in total with the balance in the controlling account. If there is a difference it must be traced out in practically the same way as an error in a trial balance of the general ledger is located.

16. *Advantages of controlling accounts.*—There are many advantages in the use of controlling accounts, the chief ones being, (a) division of labor, (b) less costly help necessary to operate the subsidiary ledgers, (c) saving of time in making records and greater promptness in preparing the financial statements, since the subsidiary records can be balanced out after the financial statements are prepared or simultaneously therewith, (d) classification of items by accounts, (e) expansion in the use of records whereby greater information, a greater wealth of detail, is available and (f) greater ease in proving the accuracy of the records, since the amount of detail involved is subdivided and separate proof possible for each subdivision.

Where the number of accounts carried becomes very numerous, as is the case with many large organizations today, each individual controlling account may be further subdivided into numerous subsidiary accounts each one of which will control a section of the big account. For example, if the customers' accounts of a business are handled geographically, there may be a special subsidiary ledger which will contain a controlling account for each state, and the combined state controlling accounts governed by one main controlling account in the general ledger. In such a case, there would be one special subsidiary ledger for the subsidiary controlling accounts and still separate ledgers subsidiary to it, probably in card form, for the individual accounts of each state.

17. *The petty cash fund.*—In practice, the business man generally has occasion to pay out numerous small amounts for office expenses, such as postage, telegrams, carfare, etc. It is inconvenient to be obliged to draw a check for each petty purchase. To eliminate this difficulty, it is customary to keep on hand in charge of the cashier, or perhaps a special petty-cashier, a small amount of cash from which these small items may be paid.

In accounting for this cash, the petty-cashier uses a so-called petty cash journal. To originate the fund, a check is drawn in favor of the petty-cashier and is cashed by him. In the cash book an entry is made on the payment side, crediting the general cash

fund and charging an account called petty cash fund or imprest cash fund. When the petty-cashier receives the cash, he puts the money in the cash drawer and makes an entry in the petty cash journal on the cash received side, as shown on page 256. For every payment that is made out of this fund, he must secure a proper form of receipt, the amount of which is recorded on the disbursement side of the petty cash journal. Thus, at all times, the petty cash fund will represent a fixed sum either in the form of cash on hand or cash on hand plus vouchers which have been approved and paid.

When the cash fund gets low, the petty-cashier sends his receipts for payments made to the main cashier. The main cashier will reimburse the petty-cashier for the total amount paid out, and distribute this reimbursing payment to the various expense accounts previously determined and indicated upon the petty cash vouchers.

18. *Petty cash journal.*—Sometimes instead of distributing the vouchers thru a detailed charge in the main cash journal, the distribution columns in the petty cash journal will be footed and the expenses posted directly from this book to the debit of the various ledger accounts, the offsetting entry being made to the credit of the petty cash account in the ledger. This account is charged by a regular cash book entry as reimbursement checks are drawn. In such instances the petty cash journal assumes the status of its more important prototype, the cash

journal. The form of a petty cash journal is illustrated on the following page.

It would be closed thru the following entry:

PETTY CASH JOURNAL

Receipts			*Disbursements*						
							Distribution		
Date	*Check No.*	*Amt.*	*Date*	*Explanation*	*Vou. No.*	*Amt.*	*Postage*	*Telegraph*	*Carfare*
July 1	9	$100 00	July 10	Office supplies	1	$5 00	$5 00		
			July 20	Messenger	2	20			$ 20
			July 25	Cashier	3	2 00		$2 00	
			July 30	"	4	3 00		3 00	
			July 30	Messenger	5	10			10
						$10 30	$5 00	$5 00	$ 30
				Bal.		89 70			
		$100 00				$100 00			
Aug. 1	Bal.	$89 70							

Postage	$5.00	
Telegraph	5.00	
Carfare	.30	
To Petty cash		$10.30
To close		

19. *Posting of subsidiary journals.*—While in the foregoing illustration the posting of subsidiary journals has been uniformly explained by means of journal entries which recorded the totals of all the transactions in these books, yet it must not be assumed that in actual practice these entries are made. The

bookkeeper in closing out a book will prove the equality of debits and credits by totaling each side, but he will make his postings directly from the totals shown at the bottom of each column and will not introduce any journal entry. The entries were made in the foregoing illustrations simply to indicate how the totals of the books could be journalized for proofs of the equality of debits and credits.

The books explained in this chapter are those customarily found in the average business organization of today. They are capable of almost infinite expansion and alteration so long as the fundamental principles are not violated. There are numerous adaptations of these forms which are especially fitted to the particular needs of individual organizations. Some of these more intricate or advanced forms are discussed in the chapter on labor saving devices. Others which often serve a useful purpose in many lines of business can not be discussed here without the introduction of a great amount of technical illustration with no appreciable benefit to others than the accountant in that particular field.

REVIEW

State the advantages accruing from the use of subsidiary journals and ledgers.

What is the value of introducing special columns in journals?

Explain controlling accounts and how they are operated.

Describe how subsidiary journals and ledgers are proved out.

What is a petty cash fund and how is it operated?

CHAPTER XV

SPECIALIZED RECORDS

1. *Accounting must meet individual needs.*—Tho a system of keeping accounting records is based on immutable principles, usually it happens that the application of these principles in recording transactions is attended by some complications. Because of the multiplicity of business activities, transactions often arise of such complex nature that it is difficult and costly to express them properly in the usual books of account illustrated thus far.

In order, therefore, to meet the accounting needs of modern business and to facilitate rather than impede its growth, it has often been necessary to depart from the standard forms and to adopt certain variations as the need arises and as the economy of so doing becomes apparent. It will be of interest to examine some of the variations which have made accounting the vital factor in business that it is today. The illustrations following may not be directly applicable to the organization familiar to the reader, but it is hoped that they will suggest helpful ideas in adapting or originating proper records when the need arises.

2. *Special journal forms.*—Frequently numerous

journal entries, affecting the customers' and creditors' accounts, have to be made. While the general journal carries only one debit and one credit column, additional columns may be introduced on each side for both customers' and creditors' accounts and thus reduce the number of postings each month by posting the totals of the debits and credits, as shown by the columns, to the customers' or creditors' controlling accounts in the general ledger. The illustration on the following page presents this form of journal.

3. *Columnar journal.*—The first entry made in the journal, given on page 260, shows that John Jones, a customer who is unable to pay his account in cash, gives a written promise to pay in the form of a note. The account for notes receivable is, therefore, debited in the general ledger column, since notes receivable is a general ledger account, and the individual account of John Jones in the customers' ledger is credited. However, no posting need be made to the controlling account in the general ledger at this time, because at the end of the month each column is footed and the total debited or credited to the controlling account indicated at the head of the column.

In the second instance, we gave our note payable to R. Roe, a creditor. While this entry is opposite in nature to the first entry, yet the manner of recording is similar. The enterprise both sells to and buys from F. Flynn. Therefore, he would have an account in both the customers' and creditors' ledgers. In adjusting a remittance in cash, the transfer of the

COLUMNAR JOURNAL

Customers	Creditors	General Ledger	L. F.	March 1, 19—	L. F.	General Ledger	Creditors	Customers
		$4,000 00	7	Notes receivable				
				To John Jones	26			$4,000 00
				To record the receipt of his note				
				2				
	$1,500 00		42	R. Roe				
				To notes payable	18	$1,500 00		
				For our note due in 60 days				
	1,800 00		48	F. Flynn				
				To F. Flynn	22			1,800 00
				To Transfer				
				15				
		500 00	3	Reserve for bad debts				
				To Paul Macey	23			500 00
				31				
	$3,300 00	3,300 00	16	Creditors controlling account				6,300 00
				Customers controlling account	5	6,300 00		
		$7,800 00				$7,800 00		

open balance between the accounts in both subsidiary ledgers is effected thru this journal entry which makes the necessary change in the individual account in each ledger and, of course, also in the controlling accounts. The other entry and the closing require no comment.

4. *Sales journal.*—Thru the introduction of additional columns, the sales journal can be made not only a book of financial record but also a book of statistical record. The form on the next page accomplishes this result.

An examination of this form illustrates its purpose. It will be observed that, in addition to classifying sales according to customers charged and according to the total credits to the sales account, the total of sales made by each department is brought out thru the use of separate columns for each department. Instead of crediting one single sales account in the general ledger with the total sales, a separate account for each department is set up and the amount of sales by departments is credited, in accordance with the totals shown by the columns in the sales book. A further requirement is fulfilled by classifying sales according to the individual salesmen. This makes it possible, where commission is based upon the volume of business, to compute easily and rapidly the commission due to salesmen.

In connection with the use of columns for distributing amounts over accounts, care must be taken to see that the number of columns introduced is not too great. Accuracy on the part of the bookkeeper will

SALES FOR JULY, 19—.

Date	Name of Account	Folio	Amount	Dept. 1	Dept. 2	House Sales	Salesmen: Smith	Salesmen: Jones	Salesmen: Baker
19—									
July 1	F. Thompson	29	$1,500 00	$700 00	$800 00	$1,500 00			
5	E. Kayser	86	765 00		765 00		$765 00		
7	C. Decker	16	350 00	350 00				$350 00	
29	E. Vogel	80	1,760 00	1,760 00					$1,760 00
			$4,375 00	$2,810 00	$1,565 00	$1,500 00	$765 00	$350 00	$1,760 00
	Commission—10%						$76 50	$35 00	$176 00

be impossible if he must puzzle over several columns in order to determine the right one in which to make an entry. Many errors in the records and troublesome differences in trial balances arise from having too many columns in a cash book or other special journal.

5. *Voucher record.*—When an organization follows the practice of paying for its purchases of material and expense items within a certain definite time after date of invoice, it may be desirable to adopt the voucher record for recording purchases. While this voucher record is essentially a journal and takes the place of a purchase journal, it incorporates the features of a creditors' ledger, thus doing away with the necessity of keeping the latter. The short period which usually intervenes between the date on which an invoice is entered in the purchase journal and its due date, if discount is to be taken, hardly warrants the labor of entering each purchase in the customary purchase or creditors' journal and ledger. This follows because payment is sometimes made almost simultaneously with the credit for the purchase. A voucher record will save at least one-half of the labor of posting which would be necessary under the other plan, since no individual accounts are carried for creditors.

Again, because of the great care which must be exercised in handling payments where the ledger account has been omitted, it is probable that a more thoro check is given to the payment and that the

vouchers themselves are examined and audited more carefully than where the ledger account of the creditor is relied upon as the authority for payment. The form on the opposite page is illustrative of a commonly used voucher register.

6. *Operation of a voucher register.*—When this record is used the purchase invoices are entered in the same manner as indicated in case of the purchase journal. At the end of each month, the total of the amount column will be credited to the general ledger controlling account, "vouchers payable," which takes the place of the creditors' controlling account.

The reader will note the absence of a folio column. In this respect, labor is saved because it is unnecessary to post the amount of each item to the credit of any individual account in the ledger. When a voucher is paid, the number of the voucher appears on the check stub or check copy and the date of the payment and check number are entered in the columns for designating payments. At the same time, the amount of the payment is verified.

It will be evident from this that every unchecked item in the voucher record represents an unpaid invoice. As the invoices are paid, the amount of payment is entered in the cash journal in the same way as when the creditors' ledger is employed. In the cash book, however, the column on the payment side will also be headed "vouchers payable" instead of "creditors' controlling account." At the end of each month, the total of this column will be debited to the

VOUCHER RECORD

Voucher		Name of Creditor	Address	File No.	Terms	Amount	Distribution									Settlements													
													Other Ledger Accounts				Number						Returns						
																									Other Accounts				
Date of Issue	Date of Receipt						* A	B	C	D	E	F	Name	Folio	Am't	Date	Note	Check	Cash	Notes Payable	Disc't	Allowance	A	B	Account	Fol	Amount		Total

* Letters refer to classes of Mdse.

general ledger account, "vouchers payable." No posting to individual creditors' accounts from the cash book is necessary since, as before stated, no individual creditors' accounts are kept.

The balance in the general ledger account, "vouchers payable," at the end of each month must be reconciled with the unpaid vouchers in the voucher register. This is accomplished by preparing a list of the open entries in the voucher register and checking their total against the balance in the general ledger controlling account, "vouchers payable." If all of the work has been done correctly, this reconciliation is a simple matter.

7. *Voucher record not universally suitable.*—It should be borne in mind that the voucher record is not adapted to all organizations. For instance, in those concerns where payment is not made within a reasonable time after purchase and where partial payments on account are the uniform practice, it would be disadvantageous to operate a voucher record. Any such procedure would only complicate the keeping of the records and make a reconciliation at the end of the month extremely difficult. Furthermore, the voucher record does not indicate, except after considerable trouble, the total amount of purchases from any individual creditor.

Moreover, there is considerable routine involved in the operation of this record. The uniform rule is that all cash payments shall be charged to "vouchers payable." Thus, it becomes necessary to see that

every credit which ultimately will be settled by a cash payment shall be vouchered and entered in the voucher register. In fact, it is even customary to distribute thru the voucher register the charges of the payroll to the various expense accounts, the check for the amount of the payroll being charged directly to the controlling account "vouchers payable."

8. *Treatment of purchase and sales returns and allowances.*—Where the number of sales returns or allowances and purchase returns or allowances are few, they will usually be entered in the general journal. In many organizations, however, because of the volume of business done or because of the terms and conditions under which the business is carried on, the number of such items is large. To enter them in the journal would mean a repetition of debits or credits to the same account at the cost of considerable time and trouble. To overcome this difficulty, a separate book for each class of these items is operated.

Normally there will be found one record in which purchase returns and allowances are entered and another register for entering sales returns and allowances. Thru the use of columns, any desired classification of these items can be obtained. The posting of them would, of course, be the reverse of the items to which they relate. Thus, purchase returns would be credited to that account and charged to the creditor which is the opposite of the entry that was made when the original purchase was recorded. It is evident that returns are in reality deductions from the

sales or purchases accounts, but it is better practice to carry separate accounts for these items instead of debiting them direct to sales or crediting them to purchases, as the case may be.

9. *Expanding the ledger account.*—The same demands for economies and time saving, that led to the expansion of the books of original entry, have had a modifying effect upon the ledger. The special requirements of a particular business give rise to special forms of ledgers and ledger accounts. The standard form of ledger account may not provide sufficient space for recording all desired information or its construction may not suit the mechanical operations involved.

An undertaking which carries large investments in bonds, for example, would probably employ a special form of ledger account in which to record the information of importance with respect to each issue of security. It is usually necessary to show the complete name of the obligor, a full description of the nature of the obligation, where and when the principal sum is payable, the rate of interest, the date the interest on the obligation is payable and the place of payment. The foregoing information is statistical or historical in character and has nothing to do with the record of the exchange and yet convenience requires that these facts be shown in the same place as the financial status of the investment.

10. *Mortgage investment ledger.*—Savings banks

and insurance companies hold large investments in mortgages. In such instances, statistical and financial data are often combined on the same record form. The statistical information usually required and which is often recorded on the reverse side of a card form of ledger account is as follows:

> Location of property, section number, ward number, block number, lot number, map number, valuation of land and improvements, separately stated together with the dates when acquired; names of the obligors on the bonds; a record of assignments, when and where the mortgage has been recorded, title policy, if any, a record of the payment of taxes, rate of mortgage interest, etc.

It will be observed that the foregoing is statistical information only. The other side of the ledger is reserved for financial information. A convenient form of ruling is illustrated below.

No. Loan to

Date	*Reference*	*Principal*			*Interest taxes and other disbursements*	
		Loaned	*Paid*	*Balance*	*Advanced*	*Repaid*

The cards upon which is recorded information with respect to mortgage investments constitute a subsidi-

ary ledger under the control of the general ledger, in a manner similar to that described in a previous chapter relating to customers' accounts.

11. *Private accounts.*—The business executive may desire to have a system of accounts under which the bookkeepers can have no opportunity to ascertain the profits of the business. Again, he may wish to conceal such information as the value of fixed assets, the relative interests of the partners and so forth. Any information which is to be suppressed is placed in what is known as the "private ledger," a special book usually provided with a lock, the key to which is retained by the manager of the business. Many times, however, it will be found that this book will be kept by a confidential clerk, accountant or other sub-official in whom the executives have implicit confidence.

In connection with the operation of the private ledger, it is necessary to operate a private journal as well. This book serves as a posting medium for entries affecting the accounts carried in the private ledger. The entries in these records will be made at regular intervals and will usually be derived from information presented in summary in the general books.

It will be evident at the outset that certain accounts can not be conveniently placed in this ledger, namely, those accounts which are active and which, therefore, are frequently referred to. The cash account and the controlling accounts for customers and

creditors are examples of the accounts which must be kept in the general ledger, if that economy of operation which is a prerequisite of a successful accounting system is to be realized. The economic accounts, except perhaps special accounts, must also be carried in the general ledger. On the other hand, the accounts which record the value of the land and buildings, investments in securities not carried as stock in trade, the values of plant and equipment, the reserve for depreciation, the drawing accounts and the capital accounts, the accounts kept for mortgages payable, or bonds payable outstanding and so forth, are examples of accounts which may be kept in a private ledger.

The inventory is almost invariably entered in the private ledger. The reader has seen that the inventory is an integral part of the profit and loss account and that it is impossible to determine what the profits have been unless the amount of the inventories at the beginning and end of the accounting period are known. Therefore, while the bookkeeper of the undertaking may be aware of the amount of the sales and purchases as well as other economic accounts, he can not determine the amount of profits unless he is also in possession of the inventory totals.

12. *Illustration of private books.*—For the purpose of illustrating the manner of operating the private ledger, let us assume that the firm of Doe & Roe commences business with the following assets and liabilities:

ASSETS

Land and buildings	$40,000.00
Plant and equipment	10,000.00
Cash	20,000.00
Merchandise inventory	15,000.00
Total	$85,000.00

LIABILITIES

Mortgage payable	$15,000.00
J. Doe, capital	40,000.00
R. Roe, capital	30,000.00
Total	$85,000.00

The following will be the trial balances of both the private and the general ledgers at the beginning:

DOE AND ROE

INITIAL TRIAL BALANCE—PRIVATE LEDGER

Name of account	*Debits*	*Credits*
Land and buildings	$40,000.00	
Plant and equipment	10,000.00	
Merchandise inventory	15,000.00	
Mortgage payable		$15,000.00
J. Doe, capital		40,000.00
R. Roe, capital		30,000.00
General ledger account	20,000.00	
	$85,000.00	$85,000.00

DOE AND ROE

INITIAL TRIAL BALANCE—GENERAL LEDGER

Name of account	*Debits*	*Credits*
Cash	$20,000.00	
Private ledger account		$20,000.00
	$20,000.00	$20,000.00

It is obvious that if the general ledger bookkeeper did not have access to the information contained in the private ledger, he could not ascertain the initial net worth of the firm, nor could he be aware of any of the details of the remaining assets and liabilities of the firm.

The usual economic accounts are maintained in the general ledger. At the end of the fiscal period, these accounts are closed to the private ledger account instead of to the profit and loss account.

It will be observed that the private ledger account in the general ledger and the general ledger account in the private ledger both show the same balance in dollars, but the balances are opposite in nature. Manifestly, this will always be so, when all of the posting has been fully completed at the end of any fiscal period.

13. *Closing the books.*—In order to illustrate the manner of closing the ledgers, let us assume that at the end of the fiscal period, a trial balance of the general ledger of Doe & Roe discloses the following:

Name of Account	*Debits*	*Credits*
Cash	$14,500.00	
Notes receivable	5,000.00	
Accounts receivable	15,000.00	
Purchases	70,000.00	
Selling expenses	4,000.00	
Administrative expenses	6,500.00	
Accounts payable		$30,000.00
Sales		65,000.00
Private ledger account		20,000.00
	$115,000.00	$115,000.00

The journal entries necessary to close the general ledger are as follows:

Private ledger account	$80,500.00	
To Purchases		$70,000.00
Selling expenses		4,000.00
Administrative expenses		6,500.00
Sales	65,000.00	
To Private ledger account		65,000.00

After posting the foregoing entries the trial balance of the general ledger will be as follows:

Name of Account	*Debits*	*Credits*
Cash	$14,500.00	
Accounts receivable	15,000.00	
Notes receivable	5,000.00	
Accounts payable		$30,000.00
Private ledger account		4,500.00
	$34,500.00	$34,500.00

Up to this point there is no evidence as to the amount of the profits. It will be assumed that the partners themselves took the inventory of stock on hand and that they also priced it and made the extensions and that the amount of the same was $40,000. The closing entries of the private books were made, we will assume, by one of the partners:

Profit and loss		$80,500.00	
Purchases	$70,000.00		
Selling expenses	4,000.00		
Administrative expenses	6,500.00		
To general ledger account			$80,500.00

General ledger account	65,000.00	
To profit and loss		65,000.00
For sales		
Mdse. inventory (new)	40,000.00	
To mdse. inventory (old)		40,000.00
Mdse. inventory (old)	25,000.00	
To profit and loss		25,000.00

If, at this point, the ledger accounts in the private ledger are examined, they will reveal the following condition (using skeleton accounts):

Land and Buildings	
$40,000.00	

Plant and Equipment	
$10,000.00	

General Ledger Account	
$20,000.00	$80,500.00
$65,000.00	

Merchandise Inventory	
$15,000.00	$40,000.00
25,000.00	
$40,000.00	$40,000.00
$40,000.00	

Mortgage Payable	
	$15,000.00

Profit and Loss	
$80,500.00	$65,000.00
	$25,000.00

J. Doe, Capital	
	$40,000.00

R. Roe, Capital	
	$30,000.00

It will be noted that there is a credit excess in the profit and loss account, which means that a profit equivalent to the amount of the credit excess has been realized. This amount, $9,500, is distributed equally to the two partners by the following journal entry:

Profit and loss	$9,500.00	
To J. Doe, capital		$4,750.00
R. Roe, capital		4,750.00

A trial balance of the private ledger at this point will be as follows:

Name of Account	*Debits*	*Credits*
Land and buildings	$40,000.00	
Plant and equipment	10,000.00	
Inventory	40,000.00	
Mortgage payable		$15,000.00
J. Doe, capital		44,750.00
R. Roe, capital		34,750.00
General ledger account	4,500.00	
	$94,500.00	$94,500.00

The reader will observe that the general ledger transactions furnish no clue to the amount of the profits and also that the private ledger and the general ledger accounts are the balancing accounts in each ledger.

14. *Entries to private ledger accounts.*—It may happen that during the period, transactions will occur that effect private ledger accounts. For example, assume that additional plant and equipment was procured for cash amounting to $5,000. In the cash book on the payment side the account to be debited would be "private ledger." This item would be taken up in the private journal by the following entry:

Plant and equipment	$5,000.00	
To general ledger account		$5,000.00

15. *Preparation of financial statements.*—Private ledger accounts are a type of controlling accounts,

that is to say, the balance in the private ledger account in the general books controls the private ledger accounts, and the balance in the general ledger account in the private books controls all the accounts in the general ledger. Consequently, in order to prepare financial statements of an organization where private books are used, it is necessary to take a trial balance of the general books and one of the private books, and then to make up the financial statement from the composite result shown by these two trial balances. This does not mean that the two trial balances must be converted into one, but rather that all the accounts in each trial balance must be carried into the financial statement, except the two controlling accounts, "private ledger" and "general ledger." Since one of these accounts shows a debit balance and the other shows a credit balance of identical amounts, we can offset the one against the other and thus leave them entirely out of consideration in preparing the statement.

REVIEW

Can you adapt the special journal form to your business?

Outline the advantages resulting from the form of sales journal illustrated in this chapter.

Explain the advantages and disadvantages of the voucher register?

Describe how private books are operated.

CHAPTER XVI

ACCOUNTING TECHNIC

1. *Special procedure an aid to practical application.*—The transactions thus far considered have been those in which the debit and credit elements were fairly obvious. Yet there are many types of transactions in which the selection of these elements is not so clear. Thus there arises a need for a study of what might be termed advanced accounting procedure or special accounting methods.

In some instances, due to the peculiarity of an individual business, or perhaps, purely as a matter of convenience, the recording of certain transactions is varied from the usual form. In other cases, for the purpose of standardizing the methods of presenting information and arriving at certain definite results, the regular procedure of accounting is not followed.

In view of these facts it is appropriate at this point to discuss the more common transactions of a special type which are encountered and to indicate the approved methods for handling them. It is impossible in a work of this nature to cover in detail every conceivable variation from standard procedure. It is our intention, therefore, to illustrate only the more important phases and to discuss examples of the ap-

plication of accounting principles to these special circumstances.

2. *Correction of bookkeeping errors.*—One of the first points to be discussed under the heading of development of technic is a definite procedure for correcting errors. It is easy to understand how, in spite of all precautions, errors will creep into the accounts. It should be a rigidly enforced rule that all errors be corrected by journal entries which in the explanation refer to the erroneous entry and thus completely tie up the correcting entry with it. A notation should be made at the place where the error originally occurred referring to the journal page where the correction has been entered.

The practice of correcting postings by cross postings between ledger accounts, without passing the item thru the journal, is not safe and should not be encouraged. It may often happen that when corrections are made in this way, the nature of the correction is lost sight of and the equilibrium of the ledger disturbed. The result is a trial balance that does not balance, with no end of trouble in locating the error.

In this connection, when a posting is crossed from a ledger account it should be ruled out with one line thereby permitting the original amount to be seen. The use of ink eradicators or erasures of any kind should not be allowed. This rule is important, first, because records with erasures are not good legal evidence in court and, second, because they offer an

easy way of covering up defalcations, forced balances and similar evils.

3. *Cash sales and purchases.*—The handling of cash sales and cash purchases, where purchase and sales journals are used together with subsidiary ledgers, often appears to be somewhat involved. Cash sales, for example, should be put thru the sales journal in the same manner as other sales, but instead of posting the amount of the sale as a charge to an individual customer's account, it can be posted to the debit of an account known as cash sales in the accounts receivable ledger.

When the cash comes thru, which will be practically simultaneously, the cash received will be entered in the accounts receivable column of the debit cash page, and eventually posted to the credit of the cash sales account in the subsidiary ledger. The advantage of this method lies in the fact that it offers a partial proof of the handling of cash sales.

A slightly shorter method based upon the same principles omits the posting of the debit to cash sales and the credit for cash payment. In other words, instead of posting the charge and the credit to cash sales account, the item would simply be checked in the folio reference columns of the sales journal and the cash journal.

4. *Total sales and purchases shown.*—Under either of the methods mentioned the sales book will show the total cash and credit sales for the period, while at the same time the cash will have been entered in

the proper and logical place, in the cash book. If the cash sales are numerous so that more than one entry a day is made in the sales journal, the amount of posting may be reduced by providing two "amount of sales columns" in the sales journal. One of these columns will be reserved for the cash sales and the other for charge sales. A special column may also be used in the cash journal if the number of cash payments makes its use desirable.

Any of these methods of procedure may be adopted with respect to cash purchases. Of course, the purchase journal will be used instead of the sales journal and the cash entry will appear on the cash credit page of the cash book instead of the cash debit. Ordinarily, the number of cash purchases is not great enough to justify any special procedure beyond the one illustrated first in connection with cash sales.

5. *Value of classified data to executive.*—There are phases of the analysis and classification of income and expenses which can only be touched upon in passing but which, nevertheless, produce records of expenses helpful to the executive. The help is found in the statistical analysis of transactions appearing in accounting records to the end that these records may be made to disclose more interesting and constructive information.

Very few business undertakings analyze the total sales of each kind of product. Seldom is any attempt made to analyze the purchases of the individual customer by classes of product. This informa-

tion is interesting and often discloses facts that are of great value as explanations of the changes that have taken place in the statements.

Thus, for instance, if a chemical drug house ascertains thru an analysis of its sales records that a customer who last year bought $5000 worth of nitric acid purchased nothing this year, a fact of vital importance is disclosed. His failure to buy may have been due to the inferiority of the firm's product when compared with that of a competitor or it may have indicated that the price for this particular article had been too high. Again it may be that the former customer has become dissatisfied with the treatment received and has not given the concern an opportunity to rectify an error or otherwise remove this dissatisfaction.

All such information is important and frequently throws interesting side lights upon the data contained in the accounts and the statements themselves.

6. *Notes, drafts and acceptances.*—The recording of notes, drafts and acceptances raises a number of questions, the first of which is whether or not a separate account should be kept for each one of these classes of negotiable instruments. Without doubt, there is a distinction between the three forms of negotiable paper and when the quantity of any one form is at all great, a separate account should be set up for it.

Sight drafts and acceptances do not require any unusual procedure. Time drafts or time accept-

ances and promissory notes, however, are frequently subject to transactions which call for a variation in normal accounting procedure. These instruments are likely to be discounted by the holder and at that time create a contingent liability. This follows because when the holder of any such instrument indorses and discounts it at his bank or with a creditor he becomes liable to pay the amount of the debt to the new holder thereof should the maker or drawer of the instrument not pay when it is presented on the due date. His liability is secondary to that of the maker or drawer but in the event of the latter's inability or refusal to pay his contingent liability becomes an actual liability.

7. *Record of notes discounted.*—This situation should be shown clearly in the records. It is true, of course, that the holder of a protested note or acceptance has a just claim against the maker or acceptor to reimburse him for the amount that he has lost, but if the latter has failed in business or made the instrument with dishonest intentions, this asset is of dubious value. Contingent liability on notes or acceptances discounted is frequently overlooked in the accounts and balance sheet altho in times of financial stringency and business depression, they are frequently converted into current liabilities thru the failure of the maker or acceptor. If they have not been taken into consideration in the accounts, they may be a material and contributing cause to the bankruptcy of the organization which indorses them for discount.

Furthermore, in order that an accurate statement of the condition of affairs may always be shown in the balance sheet, a contingent liability with respect to such instruments should be recorded in the balance sheet as well as in the ledger. As an offset, there would appear the asset of the right against the maker or acceptor.

The correct procedure for recording the receipt and immediate discounting at 6 per cent of a 30 day non-interest bearing note for $500 received from the customer, John Doe, is as follows:

Notes receivable	$500.00	
To John Doe		$500.00
Cash	497.50	
Discount	2.50	
To notes receivable discounted		500.00

It will be noted that the above entries apparently violate the rule of bookkeeping which requires that the parting with an asset requires the crediting of the asset account. This violation is more apparent than real, however, inasmuch as our interest in this note does not cease until it is paid by the maker. We still have the right to demand reimbursement from the maker in case the note is not honored when due.

When the note which has been discounted is paid by the maker, the entries are as follows:

Notes receivable discounted	$500.00	
To notes receivable		$500.00

8. *Recording a protested note.*—Should the maker fail to pay the note at maturity, the holder will then

look to the indorser for payment and it is evident that immediate payment will be demanded. The payment is entered by a credit to cash because of the cash paid out and, as the former contingent liability has been paid, notes receivable discounted is debited.

The particular instrument will then come into our possession as an asset for whatever it may be worth. If the note or instrument is one taken from a customer, it is probably better practice to credit notes receivable with the amount of the note and debit the customer's account, or it may be debited to a special account, termed protested notes. This latter account indicates clearly by its name the doubtful character of the asset.

9. *Treatment of advances.*—Another type of transaction which is frequently handled incorrectly is illustrated by the case of advances made to salesmen or other employes for expenses. The best method to be followed is one similar to the procedure outlined for handling the petty cash fund referred to on page 254. Accounts can be set up for the various advances made and these items treated as assets with the understanding that disbursements will be accounted for frequently and reimbursement made when necessary.

Another method which is sometimes followed with respect to advances to salesmen and officers is the charging of these advances to the officer's or salesman's personal account. In such cases, the item will be carried in the financial statement under the head-

ing of "accounts receivable due from employes and officers." At regular intervals the sums which have been advanced will be accounted for thru properly approved vouchers, the appropriate expense accounts will be debited and the personal accounts credited. When advances are made to salesmen against commissions, which will be earned in the future, care must be observed to see that when the actual commission is credited there is charged against it all amounts previously advanced.

10. *Reserves for anticipated discounts.*—In some lines of business large cash discounts are allowed on payments of accounts receivable. In the textile lines, for instance, it is quite common to allow customers a discount of 10% for remitting within ten days.

In preparing the balance sheet in such cases, it is important to see that a reserve is set up for cash discounts expected to be taken by customers. If these discounts are not anticipated the assets will be incorrectly stated and the true relationship between the balance sheet items, as well as the true condition of affairs, will not be shown. When such an account is set up, the actual discount taken during the subsequent period must be allocated so as to distinguish amounts resulting from payments on accounts on the books prior to the beginning of the period and those which have arisen from the accounts set up during the current period.

On the other side of the ledger too, the occasion for showing the amount of discount which the firm

itself expects to take advantage of arises when the amount involved becomes considerable. The condition of the business will not be accurately reflected if this factor is omitted. A properly ear-marked account should be set up as was suggested for anticipated discounts by customers.

It may be thought that there is no necessity for providing for such reserves because of the uncertainty of the amount and also the possibility that the variations will offset each other from month to month. However, bankers and credit men expect all such discounts to be anticipated and if it is not done they will usually make their own allowances for them.

11. *Sale of debt at a discount or premium.*—It is not uncommon practice to pay a bonus at the time a mortgage is placed upon a property; or, when bonds are issued by corporations, the obligation or debt may be disposed of to the first purchaser at a price less than its par value.

Bonuses on mortgages or discounts on the sale of bonds are, by courtesy, treated as deferred assets in the financial statement on the principle that the benefit of the money borrowed is to extend thru the entire period for which the debts run and that these items become deferred assets to be written off against the income of subsequent periods. While there are a number of different methods of writing off these items, such as amortizing them according to somewhat complicated mathematical formulas, the customary and simplest procedure is to prorate the total

of the bonus or discount over the life of the obligation and to write off an equal amount each year.

In like manner, when bonds are disposed of at a premium over their par value the premium is assumed to be enjoyed during the entire period the debt has to run and is accordingly written down in annual pro rata amounts. That is to say, this premium is recognized as income which is to be earned in all the periods during which the money so obtained is to be made use of and the total of the premium is divided by the number of years the obligation runs and an equal amount credited to income each year.

12. *Premium or discount are interest adjustments.*—This procedure, with respect to both discount and premium, is justified on the ground that the discount or premium is closely related to the rate of interest paid. Thus, if a high rate of interest is offered and the security of the obligation is good, higher prices will be received for the debt than would be the case with a bond of similar security, but a lower rate of interest. This higher rate of interest must be borne by each accounting period during the life of the obligation, and if, because of the higher interest rate, a higher price is realized from the sale then the pro rata portion of this higher price should be picked up as income in the years in which the interest on the obligation will be charged as an expense.

13. *How the nature of the business will often determine the treatment of expense items.*—Reference has already been made to the fact that the bookkeep-

ing system which is to be employed must in all cases be suitable and adapted to the particular business. An illustration of this is found in the rent accounts of wholesale and retail coal companies in some of the larger cities. These companies are of course compelled to receive the coal as it is shipped from the mines regardless of their own convenience in the matter and the storage facilities which they have.

Thus, for example, the coal shipments will begin to come in from the mines in the spring and, as land values are high and the rent correspondingly high, the coal companies often can not afford to provide adequate storage facilities. It is not unusual for these companies to hold the coal in barges or coal cars for a long period of time. Thus demurrage charges for delay in unloading will accrue. These charges are in reality of the same nature as rent. The concern would not have incurred the demurrage charges if it had been able to acquire sufficient yardage facilities to receive and discharge these cargoes of coal. Consequently, when preparing monthly statements of profit and loss in such cases it is customary in this line of business to treat the demurrage charges as rent.

14. *Distinction between capital and revenue.*—While discussing expense charges it is important not to omit a consideration of the two broad divisions of expenses, namely, capital and revenue, and to show the necessity for distinguishing between them. The determination of whether a charge is a capital ex-

penditure, to be set up as an asset, or an expense to be deducted directly from gross income is a frequent question in accounting practice. At first thought there may appear to be a clear line of demarcation between these two classes of expenditures. This does hold true with respect to most disbursements made for the acquisition of definite, new and tangible assets or the incurring of expenses which are, by their very nature, a direct part of the cost of obtaining income.

Thus, for example, the purchase of a new machine is manifestly an addition to the asset, equipment, and should be capitalized by increasing the asset account. Similarly, the payment of a salary or the creation of a liability to cover the purchase of advertising booklets which are immediately consumed represent expenses which are a direct deduction from income.

We can go a step further and say that repairs to existing equipment are usually chargeable to expenses unless the depreciation reserve has been created with the intent to set aside sufficient depreciation each year to take care of repair charges as well as the annual decrease in the value of the assets. The real difficulty appears with the necessity of classifying expenditures made or liabilities incurred on items which are doubtful, such as an extensive change in an existing asset whereby it seems likely that the production or the value of that asset after the work has been completed will be greater than it has ever been before. Erroneous classifications of this type,

whether intentional or not, frequently become the basis of incorrect statements and wrong conclusions.

15. *Capital expenditures are extended or acquired assets.*—Ordinarily it is not so difficult as it may seem to draw a line of distinction between these two classes of expenditures. All one needs is to bear in mind that all expenditures to be recorded as capital charges must be represented by actual increased asset values. If the charge in question is one which covers the acquisition of a new asset, there is never any question. When it arises from the extension or alteration of an existing asset, then further discrimination is required; if the particular expenditure has been for the sake of increasing the capacity of the enterprise, then it should be capitalized.

If, however, the result of the extension has been such as to merely put the earning capacity of the organization on the same footing as it was before a decline—such decline being due to ordinary wear and tear—then the expenditure must be charged against revenue since the earning capacity has not been increased and the asset values have not changed.

16. *How to charge replacements.*—Many times an apportionment of expense becomes necessary when it is hard to decide how much of the expenses should be charged to capital and how much to income. When new works, for instance, replace old works and when such replacement increases materially the earning capacity (as in the cases of railroads when old wooden bridges were replaced by modern steel

bridges) the accountant is confronted with a difficult problem. If the entire expenditure for new assets is treated as an acquisition of additional value, the supplanted value of the old assets is left out of consideration.

On the other hand, if the entire cost is treated as a replacement it would be an unfair charge against income. The best rule in such cases is to charge the ordinary undepreciated cost of the old works, less residual value, to expense and to charge the remainder against capital.

17. *Conclusion.*—There are, naturally, many other intricate types of transactions whose nature requires special expression in the accounts. The foregoing, however, illustrates the most important of these and will suggest the method and procedure to be followed with respect to other similar transactions. In the Modern Business Text on "Accounting Practice," there is a further discussion of methods followed in the handling of unusual or intricate transactions.

REVIEW

Describe the best procedure to follow in correcting bookkeeping errors.

How should cash sales and purchases be handled?

Explain the account "notes receivable discounted."

Illustrate how the nature of business often determines the accounting procedure.

Why is it important to distinguish between capital and revenue charges?

CHAPTER XVII

LABOR-SAVING METHODS AND INTERNAL CHECKS

1. *Development of labor-saving methods.*—No standard form of records and no standard method of carrying on work can be equally well adapted to every business organization. Thruout this volume it has been emphasized that to be successful, accounting processes and accounting systems must be fitted to the individual needs of each organization in which they are used. Accuracy, speed and adequate information are expected from a good system and these may be attained in several different ways. Books may be added or omitted, forms may be varied, ledgers and journals may be combined in a single form or any individual record may be split up into subsidiary units so long as the resulting system satisfactorily serves its purpose and presents the necessary information. The acme of a successful system may be described as one in which the maximum of information is obtained with the minimum of expense and time.

It is hard to say, as a matter of fact, where any phase of accounting leaves the realms of standardized procedure and warrants the description of a labor-sav-

ing process. Radical methods of today become common practices tomorrow. For example, the use of loose-leaf records and card ledgers has become so prevalent as to be practically standard practice in many accounting systems. Yet a few years ago, such records were looked upon as radical changes, the installation of which would be attended by grave difficulties and dangers.

To gain speed without sacrificing accuracy, it has been necessary to call upon machinery to aid accounting procedure, especially in the recording and classifying of such statistical data as may be used to supplement the accounting records and add to their value.

2. *Loose-leaf ledgers.*—The outstanding feature of loose-leaf records and the one that has brought them into general use is their flexibility. The advantages of these records become most apparent in large organizations which require several bookkeepers for the accounting work. Since this form of record can be split up and passed into the hands of several clerks, several different stages of the work may be carried on simultaneously. The loose-leaf ledger, moreover, raises no vexing questions of pagination, the carrying forward of balances to new pages, the elimination of dead accounts or the introduction of new accounts. It is only necessary to open the ledger at the desired place and insert a new sheet which will become a part of the old account or serve to introduce a new account in the desired loca-

tion. Such books besides being flexible have the advantage of being cheap and compact.

It is possible, moreover, to combine several different books in one by inserting different colored sheets of the desired ruling whenever necessary. Thus, in many organizations, the customers' and creditors' ledgers are bound into the same binder with the general ledger, altho there will be controlling accounts in the general ledger which cover the balances in the two subsidiary ledgers. Again, in many organizations, it may be desirable to combine all the books of original entry into one by having a general journal, cash journal, sales journal and purchase journal within one binder and designating the various records thru the use of appropriately colored sheets for each.

3. *Card ledgers.*—Card records give the same flexibility and compactness as loose-leaf books. In many cases they are even more satisfactory than loose-leaf records because of their even greater flexibility. Cards are less permanent as a record, however, and are more easily lost.

The most frequent use of card records is found in those subsidiary ledgers which are controlled by controlling accounts in the general ledger. Accounts receivable, for example, are frequently recorded on cards, especially when the individual items involved are small and the number of accounts is great.

Again, if frequent reference is made to these cards for correspondence or any other purpose, this reference is greatly facilitated by the fact that cards can

be withdrawn from the files at will and shifted from department to department. This transfer of cards, however, is attended by the great danger of having cards lost or their being out of the file when it becomes necessary to refer to them in matters of importance. Generally where cards are in use, the shifting of cards from the accounting department to any department of correspondence or record is strictly forbidden unless a charge slip is put in the file in place of the card removed so that at any time, when reference to the particular card becomes necessary for another purpose, it can be located without trouble.

4. *Control essential.*—An accurate accounting control is one of the first requisites to the successful operation of card records. If the accounts covered are split into sections and controlled by separate controlling accounts, then frequent reconciliation of each section must be made. Furthermore, under ordinary circumstances, some check on the number of cards that should be found in each sub-division is desirable. This aim is sometimes accomplished by numbering the cards themselves and then operating a control card for each one hundred numbers. In this way as fast as cards are permanently removed from the file because the accounts are closed out for any reason, they are marked off the control card. This card then, at all times, shows only the numbers of the actual live accounts which should be in the files or represented there by charge slips showing their actual location.

5. *Disadvantages of loose-leaf or card records.*— While the loose-leaf and card systems are particularly adaptable to the ledger account, they do not ordinarily possess any great advantages when applied to books of original entry. In fact, there are some disadvantages in their use here. Altho the forms of account acceptable as evidence in the courts have not been fully and definitely settled, yet the general rule today is that a book of account, in order to be admissible evidence of debt in a court action, must be one which has been prepared in chronological order and practically at the time when the transaction to be established took place. It must be presented in a form which makes changes and fraudulent entries difficult of accomplishment.

Books of original entry when in loose-leaf form can be altered by the simple process of removing the sheet on which the change is to be made, rewriting it with the change incorporated, and substituting the new sheet in the place of the old. Our courts are cognizant of this fact, and look askance upon records that are not bound together in such a way as to make the substitution of one sheet for another practically impossible. This form of record also makes it easier for the clerks or bookkeepers to make fraudulent entries which will cover up any number of undesirable facts, ranging from the forced balancing of a troublesome trial balance to the skillful hiding of extensive defalcations.

In order to enjoy the advantages of loose-leaf rec-

ords without incurring all the disadvantages, many concerns keep their cash and journal entries in permanent bound records and maintain their subsidiary journals and ledgers in loose-leaf form. By carrying the more important records in bound book form they protect themselves should they ever be compelled to present these records in court.

6. *Use of the Boston Ledger.*—A form of ledger account which may be termed a labor-saving device and which is adapted to certain types of work is known as the Boston Ledger or the Bank Ledger. The form of this book meets the demands of certain organizations for daily balances of accounts. There are columns for the initial balance, for the debits, for the credits and for the final balance. In addition, space is provided for the direct entry of every transaction which affects the balance of the accounts. Storage warehouses, dairies, banks and other businesses, whose clients are many but where the individual transactions are comparatively few, have developed the Boston Ledger to such an extent that, if an error occurs in posting, it can be located without trouble by comparing the footings of the ledger columns with those of the corresponding columns in the books of original entry.

7. *Operation of the Boston Ledger.*—The Boston Ledger was originally developed by banks. Ordinarily it is of the loose-leaf variety with each account appearing on both a wide sheet and a narrow sheet. Each ledger page contains, according to the number

of entries and importance of the accounts to be carried, anywhere from one to twenty accounts per page. The wide sheets are the control sheets and contain the name and number of the account, as well as the address and standard heading which appear on every account. The narrow sheets record the balances and the various debits and credits which are made to the accounts. Usually, one side of each short sheet is used to cover the transactions for a month. On each sheet there appears at the beginning the initial balances for the month and, after the monthly transactions have been entered, the closing balance for the month.

The Boston Ledger as used in banks usually does not contain any segregation of the sources of debits and credits. However, where more than one book of original entry is used, a separate column is devoted to the debits or credits from each book, so that by adding up the totals of each column for all the ledger pages at the end of the month, the total debits or credits from any book of original entry can be balanced individually and directly against the sum of the entries made in the ledger accounts. Each account must be totaled monthly both horizontally and vertically. One form of Boston Ledger is illustrated on page 300.

8. *Advantages of the Boston Ledger.*—The advantages claimed for this type of ledger are: (a) that it makes the preparation of monthly customers' statements possible without any reference to the books of

BOSTON LEDGER
(Master Sheet)
March 19—

ACCOUNTS	DATE	INITIAL BALANCE	DEBITS			CREDITS			CLOS BALA
			CASH	SALES	JOURNAL	CASH	JOURNAL	SALES	

original entry, (b) if the customers' accounts do agree with the controlling account in the gene ledger, the differences can be located by checking totals of the various columns against the totals for books which they represent, (c) since the long she are permanent in form and since they contain greater part of the information that must be car forward when a new ledger is opened, time is sa in transferring accounts from month to month year to year. Only the closing balance needs to carried forward. In conclusion it should be said use of this type of ledger is serviceable only in th organizations where frequent reference is necess

a daily check essential and the number of charges or credits to any individual account small.

9. *General rules of procedure.*—Labor-saving as a final step in the installation and operation of a successful accounting system naturally follows a study of the requisites of the business and an observation of the manner in which the fundamental principles making up the accounting procedure work out. Labor-saving devices are one step ahead of ever-advancing practical accounting procedure.

Their development is the frontier of accounting effort which is ever being moved forward as the new thought and study of the progressive executive is adopted and made standard by his less resourceful brothers.

The chief feature of labor-saving is the making of each process automatic so that the bookkeeper does not find his mind over-burdened with unnecessary checks, references, routine work, etc. If he is required to do but one thing at one time he is very likely to do that thing accurately and well, but if each day's or each hour's work is made up of the overlapping combination of several different processes, no bookkeeper should be greatly criticized for errors.

10. *Relation of labor-saving methods and internal checks.*—Closely related to the development of modern accounting procedure and the installation of various labor-saving methods is the subject of internal checks. A system that does not impose safeguards upon the action of the employes is not a system at

all, but rather the grouping of a series of individu routines, each one of which in itself may be high satisfactory, tho not under any centralized control closely tied up with any other part of the systen hence it can be constantly varied at will by any o wishing to take a dishonest advantage of it.

11. *What is internal check?*—In the previous cha ters we have seen that in the process of accounting d velopment many deviations were made from t simple journal and ledger, all for the purpose of a taining greater economy in time and labor. It h not been concealed that these various departures m be attended by certain dangers, namely, the increas chances of making errors either intentional or uni tentional. As this is the case, it is evident that sor positive check is required to discover and often prevent errors of either nature; any established ro tine that does this may be called a system of intern check.

12. *Proving accuracy.*—The simplest way to ve ify the accuracy of any work is, of course, to che over what has been done. The monotony of t bookkeeper's work and the frequent interruptions which he is subject will lead to errors in operation matter how capable he may be. A poor bookkeep or one who is incapable of concentrating on his wo will naturally be even less effective.

A check may be made either by the bookkeep himself or by somebody else. It is probably safer have somebody else do the checking for every m

has a natural tendency to repeat an operation in exactly the same manner in which it was first performed. When more than one bookkeeper is employed, arrangement should be made whereby one checks the work of another.

13. *A self-proving trial balance.*—A method has been adopted by some bookkeepers and accountants thru which the trial balance is rendered practically self-proving. Some form of checking is essential to accurate bookkeeping even tho the trial balance balances. A number of possible errors may be committed without in any way affecting the equilibrium of the trial balance. A form of checking which combines a proof of the equilibrium of the trial balance with a proof of the accuracy of the postings to the accounts is probably the best method of all. Some organizations have no other form of proof than the one described below and find that it works out so successfully that month after month only an hour or two is required to locate any trial balance differences and that incorrect postings to one account of items that properly belong to another are practically unknown.

Under this method the ledgers are posted in accordance with the ordinary method but no check is made of the individual postings to the ledger. On separate sheets, however, all accounts in the ledger are constructed in skeleton form. That is to say no provision is made for entering the explanation of the data or the cause of the entry. Only the amounts

and their proper status of debit or credit are entered. This posting to separate sheets where as many as one hundred accounts are grouped on one single sheet can be done quickly. In fact, it is the experience of many bookkeepers that the posting of these separate sheets can be done more quickly than the original postings to the ledger accounts in the ledger can be checked back.

On another sheet the trial balance is prepared in a form somewhat like the following illustration.

Trial Balance
____________Company
_________19__

ACCOUNTS	BALANCE 1ST OF MONTH		MONTHLY DEBITS OR CREDITS		BALANCE END OF MONTH	
	DR.	CR.	DR.	CR.	DR.	CR.

14. *Preparing the trial balance.*—The two columns on the left contain the balance in the account at the beginning of the month and the two columns in

the center are provided for the total debits and total credits of the month. These items are obtained from the skeleton ledger accounts which were constructed on the proof sheet containing the debits and credits to each account for the month only.

When the monthly account totals have been transferred to the trial balance, the balance at the end of the month is obtained by adding or subtracting the net difference for the month to the balance at the beginning of the month. For example, if the balance in the cash account at the beginning of the month was $10,000 and if the month's transactions resulted in debits of $14,000 and credits of $12,000, then there is an increased debit of $2,000 which means that the balance of the cash account at the end of the month becomes $12,000. If the work has been done correctly, the totals of monthly debits and credits to all accounts will be equal.

If this equilibrium does not exist, checking to ascertain the error may be postponed until work is completed on the regular ledger. The balances at the end of the month should all be computed by adjusting the balances at the beginning of the month in accordance with the changes as shown by the two center columns. At the same time another clerk should be engaged in totaling the accounts in the ledger and entering the balances in small pencil figures on each account page. It will be noted that the two right-hand columns represent a trial balance of the accounts at the end of the period, altho the amounts have been

obtained from the skeleton ledger set up and not from the regular ledger.

15. *Verification of balances.*—In order to verify the ledger accounts themselves, to check out any possible errors that may have occurred in posting the monthly debits and credits and to verify the trial balance which has been prepared, it is usually sufficient to check the balances as shown by the self-proving trial balance against the balances as shown in the ledger accounts themselves. There is very little chance that an error will be made in the trial balance by one clerk and repeated by another one in the posting to the ledger. It is equally improbable that the same error will have been made in computing the trial balance or in balancing out the accounts in the ledger itself. By checking each individual account and investigating any discrepancies between the trial balance and ledger balance, all errors in recording the month's transactions will in the great majority of cases be located unless one of the books of original entry is out of balance. As a matter of fact, if this checking against the ledger does not disclose the error, it is very likely that the mistake has been made in the entries in one of the books of original entry and a re-examination of them will usually soon prove this.

16. *Accounting control—joint responsibility.*—A method of establishing accounting control which deals with the accuracy of the work, as well as the reliability of its performance, is accomplished by dividing the duties of the business organization so

that fraud or error can not be committed and successfully concealed unless there has been collusion among several people. If this system is not adopted the same person may sell goods, for example, receive the money and make the record in the accounts. Under such circumstances it would be easy for him to make a sale, not record it and put the money into his pocket.

If a system can be established whereby the person who makes the sale is compelled by the customer to record it correctly, then a second takes the money and a third records the cash received by this second person, collusion among three people would be necessary before a fraud could be concealed. The department store method is to provide a receipt, a delivery ticket with an office copy and a cashier's coupon. The first three must be made out simultaneously by the salesman; they must then be transmitted to the departmental petty cashier who will stamp and return them. One is given to the customer, another is deposited in a locked box for the use of the accounting department and a third goes to the shipping room with the goods. The cashier's coupon enables the petty cashier to check her own records.

Again, in connection with credit sales, if the same person ships the goods, keeps the sales book, and later receives the money and makes the cash record, he may neglect to record a sales invoice and when the customer's check arrives fail to enter it among the cash receipts, forge the indorsement on the check and cash it for his own use.

If the various functions are so separated that one person makes the shipping record, another fills out the invoice, a third records the invoice, a fourth receives the check and records it and a fifth goes each day to the bank and deposits all receipts, bringing back an additional deposit sheet on which each check is shown separately, the opportunity to withhold checks without discovery is greatly diminished. To require a daily deposit of all cash receipts and comparison from time to time of the daily cash strip with the duplicate deposit tickets or, better still, with the originals obtained from the bank, effectually prevents holding out payments.

17. *Functions of the auditor.*—The responsibilities of the auditor and his staff in any organization are not light. He must be constantly on the alert to detect erroneous transactions and must review as many of the charges and credits as he can. To avoid any possibility of matters being put thru without his official verification, he should provide means for checking up on the handling of transactions after they have passed thru his hands. Thus, for example, if all incoming bills are O. K'd by the auditor before being entered in the purchase journal, then, in addition to this, the auditor or a member of his staff should at regular intervals check the bills which have already been passed and entered in the purchase book to make sure that no bills are put thru unless they do bear his O. K.

Similarly, where all requests for cash payments are

O. K'd by the auditor, an irregular check should be made by him or by a member of his staff to see that no payments are made which do not bear his O. K. Centralized control of such activities and functions is essential. Whenever possible, every payment, no matter how small, and every charge or credit to a ledger account, no matter how simple, should be reviewed in one form or another by one single person. When this is not possible because of the size of the organization and because of the number of transactions involved, each individual connected with such work should have segregated for his inspection and responsibility certain divisions of the work.

REVIEW

Describe the Boston Ledger.

What phases of bookkeeping procedure may properly be designated as labor-saving methods?

Explain why internal check is an integral part of any well-functioning accounting system.

In what ways may the accuracy of the trial balance be proved or errors in it located?

CHAPTER XVIII

THE FIELD OF ACCOUNTING

1. *Systematic record keeping.*—To realize fully how accounting can be made to contribute to the conduct of modern business it is necessary that we have a clear idea of what accounting is and what a properly constructed accounting system can do. To this end it will be helpful to emphasize certain thoughts that have been brought out in the preceding chapters. The modern complex accounting system brings to an executive a record of all sources of income, both in total and classified by individual sources. It presents the cost of incurring each class of income and, in addition, sets forth a detailed record of all property owned by the business and all debts owed.

From his study of this data, when it is properly classified and sufficiently detailed to give all the necessary information, the executive can picture the progress and status of each separate division of his business. He is able to put his finger on every cause of unnecessary or excessive expense. He can learn the relative profits earned by the different activities and thus be guided in his efforts to stimulate the profitable lines and to abandon or improve the unprofitable ones.

2. *Check on personal responsibility.*—Besides fulfilling the functions of record keeping and of executive guidance in operating matters, a properly constructed accounting system helps to establish personal responsibility and to promote honesty among officials and employes. In any business where the activities are carried on by more than one individual, involving the use of more than one room or the operation of several departments, the owner or executive must entrust at least some of his funds, materials or other possessions to the care of others.

When these trusted associates realize that their responsibilities are set forth in the records and that any discrepancies on their part will probably be disclosed, they are far less easily tempted to convert a part of the funds or goods to their own use. This important function of accounting has given rise to those modern systems in which the idea of "internal check" is given such prominence.

3. *Measures of efficiency.*—An accounting system, furthermore, when it has been properly constructed, measures the efficiency of departments and individuals. Accounting binds together all parts of a business and furnishes such historical records that one who is capable of interpreting them can, from his study of the past, develop sound ideas with respect to what will happen in the future. The record of the results of past policies helps to determine the form which future policies shall take. The records of past production, when interpreted in the light of all con-

tributing features, give a picture of the efficiency of every individual who is contributing to the business done.

Those who have charge of departments, or hold or expect to hold responsible positions, should realize that the best possible gauge of the success of their work is found in the accounting records of that work. This thought becomes of interest to them, first, that they may do all things possible to make certain that these records present a favorable showing and second, that they shall equip themselves to interpret these records, understand them and draw from them all the information that they can to help in turning out still better work in the future.

4. *Divisions of accounting.*—Accounting work may be divided into the following four general fields, namely, bookkeeping, constructive accounting, inspective accounting and interpretive accounting. Bookkeeping requires little discussion, since it is but the work of operating records after they have been constructed. Accountancy is the term embracing the broad body of general principles in accordance with which the bookkeeping processes are carried out. Accountancy is the science, governing bookkeeping, which is in itself the art. Successful bookkeeping, then, depends upon the developing of the other three fields just mentioned.

5. *Constructive accounting.*—Constructive accounting comprises the work of originating accounting systems and improving existing accounting systems.

The proper construction of a system of accounts involves the setting up of scientific classifications for recording transactions; it requires an understanding of accounting principles and also of the nature and peculiarities of the particular business to which it is applied. Every system must possess the following three characteristics:

(a) The records should be so explicit and minute in detail that at any subsequent time the nature and character of any particular exchange may be readily perceived without oral explanation

(b) As the leading principle of bookkeeping is classification, the exchanges should be so classified that at any time the total result of such exchanges or any particular class or division thereof, during any given period, may be readily ascertained

(c) The system should be so devised that the maximum amount of information may be obtained with the minimum amount of clerical labor.

Constructive accounting, more than any other phase of accounting, requires a broad experience and a sound knowledge of principles.

6. *Inspective accounting.*—The work of operating an accounting system after it has been installed is simply bookkeeping. The average bookkeeper is not sufficiently trained to be certain that his records give

complete expression to the conditions existing, nor is he certain of their accuracy. Consequently there has grown up a body of men whose work is that of inspecting the work of bookkeeping and passing upon its accuracy. They guard against the commission of errors, checking up both on errors of principle and on those mechanical errors which are bound to creep into any bookkeeper's work. They are also an active factor in checking fraud on the part of those charged with responsibilities. The results of their checking are expressed in the preparation of independently summarized financial statements, certified to by them.

7. *Interpretive accounting.*—The final aim in all accounting work, whether it is constructive accounting, bookkeeping or inspective accounting, is to render possible the collection and presentation of essential facts regarding any business enterprise in such a form that these facts can be used by executives. Reading financial statements and drawing from them all the important data which pertain to the operation of the business, the profits earned and the present financial status, is known as "interpretive accounting."

8. *Accounting records must be individual.*—Without losing its fundamental soundness, every accounting system must be one which reflects the individual conditions existing in the particular company where it is operated. A system, a particular form of record or a method of procedure which has worked out well

in one organization, will frequently be an absolute failure when adopted in whole by some friendly or competing company. This failure will be due to the difference in the characteristics of the two companies or of the men directing them. No two organizations are exactly alike, either in their methods of carrying on business or in the personnel directing the business, nor can they be alike in the managerial policies which the executives have established. Financial arrangements, selling conditions, peculiarities of executive control, varying costs, divergencies in manufacturing procedure and the like all serve to differentiate any one organization from every other.

Since the chief purpose of an accounting system is to bring to an executive a knowledge of facts about his own business, and since he relies upon these facts in determining future policies or in checking up the results of the past, individuality of records is decidedly important. The little points of difference many times mark the reasons why one company makes a profit while another incurs a loss. Accounting records should bring out these differences and not hide them.

9. *Accounting and government regulation.*—The relation of the government to business has taken on an added significance within the last few years. Ten years ago the business man had little concern over his relation to the government and found that the government activities played but a small part in the conduct of his particular business. Now, however,

increased taxation, price fixing, compulsory labor adjustments, rate regulation, governmental financing, etc., have changed conditions materially.

The proprietor who was lax in his method of bookkeeping, or who kept no books at all, has been compelled to change his methods by the necessity of making up a tax return which will be subject to verification at a considerably later date. He now finds it necessary and also profitable to distinguish carefully between capital and revenue charges, not only because the law requires it, but also because mistakes in procedure have a serious effect upon his taxes. Again, many who did not formerly attach any importance to the theory of depreciation are now eager to adopt it, when they realize the effect of its provision upon the amount of taxes which they have to pay.

10. *Improved processes the result.*—Whether business men like it or not, it must be admitted that one result of governmental influence in business has been the development of better methods of account-keeping. This is generally recognized as having had an important part in putting our business houses upon a better basis. Manifestly, the greater use that is made of the accounting records and the more information that is drawn from them, the better equipped the proprietor will be to manage his business satisfactorily and successfully.

Therefore, it is probable that the real value in the improved accounting methods has not been so much

the possible saving in taxes that may have resulted from more accurate records, as the increased efficiency of the business men who have been compelled to adopt methods, records and systems that they did not before care to recognize.

11. *Effect of other public questions.*—Price fixing and rate regulation are other factors with which the business world is growing more and more familiar from year to year. Whatever view we may hold upon these subjects, we are at least able to appreciate that one real need of the hour is a proper accounting analysis. In strikes, wage adjustments and other labor troubles, especially in the essential industries, reference is frequently made to the more or less inadequate statistical data obtained from such accounting records as have been maintained. Arbitration agencies are often seriously handicapped in passing upon the questions of the issue, because of the absence of the facts on which to base decisions. Perhaps it is too much to say that a satisfactory accounting system would overcome all these evils, but certainly it would mitigate them.

12. *The plan and scope of the Modern Business Accounting Series.*—The Alexander Hamilton Institute believes that every business executive requires as a part of his equipment that knowledge of business conduct which will be gained by a thoro study of the volumes on accounting, which form a part of the Modern Business Text. With the present volume as a foundation in its discussion of the underlying prin-

ciples, the reader will next devote his attention to the subject of Cost Finding. Accuracy of cost records is always a pressing problem in every concern, and becomes of great importance wherever manufacturing processes are carried on. We are now in a period of keen competition and more stabilized practice, as compared with a few years ago. In times like these, the profits of an organization frequently come largely thru economies which it is able to effect in connection with its manufacturing operations. Without the use of an adequate cost-finding system, economies will be realized only thru guesswork and sheer luck.

13. *The other accounting volumes.*—The reader will be given next in the volume on Accounting Practice a thoro discussion of some of the more intricate phases of accounting practice and the application of accounting principles to complicated or to special situations.

The final volume in the accounting series is Financial and Business Statements. This volume presumes a thoro understanding of the principles covered in all the preceding volumes of the Course and not merely in the accounting volumes. In passing, we might say that successful accounting interpretation depends as much upon the individual's wide knowledge of his own business and of the proper conduct of all branches thereof as it does upon a knowledge of accounting itself. Intelligent interpretation is nothing but the application of one's knowledge

of what the general conduct of business should be to the results of the conduct of a particular business, as shown by the financial statements of that business.

It might perhaps be said that all the work that has gone before, in connection with accounting, reaches its culmination in the volume on Financial and Business Statements. That is true if we subscribe to the view that the greatest importance of accounting is in the constructive use that is made of the information that it presents.

In this volume too there is given a thoro discussion of the work of the auditor, first, with the thought that as the business man becomes more acquainted with the auditor's work he will unconsciously acquire something of the auditor's viewpoint, and consequently be able to look upon his own business and his records with a critical eye; and, second, because the work of an auditor has assumed such importance that the executive ought to know what he may expect from the auditor and how he can best cooperate with him.

REVIEW

What important ends should an accounting system accomplish?

Distinguish between constructive, inspective and interpretive accounting.

Why can not the accounting system of one concern be successfully adopted by another?

Outline the effect of governmental regulation upon the development of modern accounting systems.

NOTE: Numerous questions of business practice and procedure

are discussed in detail in the Modern Business Reports. The current list will show those which are especially pertinent to the Accounting volumes. Among them may be mentioned:

1. Inventories, Physical and Perpetual.
5. Cost Accounting Systems.
6. Accounting Procedure.
8. Typical Problems in Advanced Accounting.
12. Special Phases of Accounting.
18. Accounting Records as Legal Evidence.
39. Balance Sheet Audit.
40. Detailed Audit.
45. A Cost Accounting System for a Bank.
84. Graphs in the Presentation of Business Statistics and Reports.
90. Preparation for the Accounting Profession.
95. Construction Accounts.

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